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## Summary

A wind tunnel test was conducted in the NASA Ames 7- by 10-Foot Wind Tunnel to investigate the lift distribution on a semi-span wing with a discontinuous change in spanwise twist. The semi-span wing had a tip with an adjustable pitch angle independent on the inboard section pitch angle simulating the free-tip rotor blade when its free-tip is at a deflected position. The spanwise lift distribution over the wing and the tip were measured and three-component velocity surveys behind the wing were obtained with a three-dimensional laser doppler velocimeter (LV) with the wing at one angle of attack and the tip deflected at different pitch angles. A six-component internal strain gage balance was also used to measure total forces and moments on the tip. The three-dimensional lift was computed from the two dimensional lift distributions obtained from the LV and from the strain gage balance. The results from both experimental methods are shown to be in agreement with predictions made by a steady, three-dimensional panel code, VSAERO.

## NOMENCLATURE

| | |
|---|---|
| $c$ | closed integral path around the airfoil |
| $c_l$ | sectional lift coefficient |
| $C_L$ | three-dimensional lift coefficient |
| $\bar{C}_L$ | mean three-dimensional lift coefficient from strain gage balance |
| $c_0$ | root chord length |
| $c_l$ | sectional lift coefficient |
| $l$ | dimensional sectional lift |
| $q$ | dynamic pressure |
| $\vec{q}$ | local velocity vector |
| $U_\infty$ | free stream velocity |
| $u$ | streamwise component of the local velocity |
| $w$ | vertical component of the local velocity |
| $x, y, z$ | wind tunnel coordinate system |
| $\bar{x}, \bar{y}, \bar{z}$ | wind tunnel coordinate system normalized by the root chord length, $c_0$ |
| $\delta_{C_L}$ | standard deviation of $C_L$ from the strain gage balance |
| $\Gamma$ | circulation strength |
| $\theta_{tip}$ | tip pitch angle in deg. in wind tunnel coordinate system |
| $\Delta\theta$ | differential pitch angle between the tip and inboard sections, positive when the tip leading edge is up relative to the inboard section |

## 1. Introduction

A previous numerical study indicated that a helicopter rotor blade equipped with a free-tip, which is structually decoupled from the inboard section, has a very strong secondary trailing vortex shed from the junction between the inboard section and the free-tip due to a large discontinuity in the bound vorticity at the junction (Reference 1). A small scale helicopter rotor wind tunnel test also showed a large power reduction when the rotor was equipped with a free-tip (Reference 2). It was hypothesized that this secondary trailing vortex results in strong upwash at the tip, which has a significant effect on the tip pitch attitude and the lift distribution on the tip, which may contribute to induced drag reduction on the tip, causing a drastic reduction of power requirements of the rotor system (Figure 1).

In order to prove the above stated hypothesis, an investigation of the flow field around a rotor blade with a deflected tip was necessary. Although the ideal situation is to take velocity measurements in the rotor flow field, a semi-span fixed wing configuration was chosen for the wind tunnel test because of its simplicity. It was assumed that the generation of the tip vortex at the wing/tip junction and the magnitude of its effect on the spanwise lift distribution were the same for a fixed wing as for a rotor blade.

## 2. Test Apparatus

### 2.1 Test Facility

The test was conducted in the 7- by 10-Foot Wind Tunnel at NASA Ames Research Center. This wind tunnel is a closed-circuit facility with test section velocities in the range of 0 to 160 *m/sec*. The flow was regulated to yield a dynamic pressure of $0.2155 \times 10^4$ $N/m^2$ throughout the test.

### 2.2 Model Description

The semi-span wing with a tip, whose pitch angle is adjustable, was mounted horizontally in the test section. Figure 2 shows the location of the wing in the test section relative to the laser doppler velocimeter (LV) as well as the location of the velocity scan planes. The actual installation is shown in Figure 3.

The inboard and tip sections both have the same airfoil, V23010-1.58 with 0.0° deflection tab at the trailing edge. The inboard section has a constant chord of 0.209 $m$ and a span of 1.524 $m$, however, its effective span was reduced to 1.076 $m$ due to the splitter plate. The splitter plate

was installed in order to minimize the wind tunnel wall boundary effects. The adjustable tip section was mounted on a six-component internal strain gage balance (Task Corp. Mk. XXIX-A, Figure 4) at 1/4-chord. A gap of about 2 *mm* exists between the inboard section and the tip section. The data from this strain gage balance were acquired and processed with the NASA Ames Standard Wind Tunnel System (SWTS).

Two planforms were used for the tip section, rectangular and swept / tapered. Both planforms are shown in Figure 5. The swept / tapered planform is identical to the one used in the rotor wind tunnel test reported in Reference 2. Figure 6 shows the swept / tapered tip installed on the inboard section. The pitch angle of the tip could be manually adjusted to a pre-designated angle, indexed by the balance / tip adaptor and remained fixed during each tunnel run.

The coordinate system used has its origin on the leading edge of the metric break. The x-axis coincides with the free stream velocity vector, y-axis is oriented toward the inboard section and z-axis upward. All coordinates were normalized with the wing chord length.

All data acquired were steady. The only unsteady behavior observed was the turbulence level of the ambient flow, which is presented in terms of the standard deviation of the steady mean velocity. The previous study described in Reference 3 indicates that the turbulence level in the empty test section is approximately 0.26 % and 0.76 % of the free stream velocity in the axial and transverse directions, respectively.

### 2.3 Laser Velocimeter

A three-dimensional laser doppler velocimeter (LV) was used to measure the flow velocities around the wing. The LV system uses the three most powerful lines of an 8-Watt argon laser (wave lengths 514.5, 488.0, 476.5 *nm* respectively). It is a dual-beam backscatter type and simultaneously measures two orthogonal velocity components, streamwise and vertical, and the non-orthogonal cross-flow component. Zoom optics enables the LV system to translate the focal volume of all three channels in the cross flow direction, and the optical table translation mechanism positions the LV focal volume in the streamwise and vertical directions. The non-orthogonal channel has a weak coupling with the vertical component channel with coupling angles of 10° to 28°, depending on the focal volume location in the cross stream direction. The semi-major axis of the focal volume of all three channels combined is approximately 5 *mm*.

The zoom optics and the translation mechanism were controlled by an HP 1000 computer. The data acquisition, including the LV sample size, was automated to achieve a predetermined velocity confidence interval (95% confidence, ± 0.1 *m/sec*). Mineral oil was used to seed the tunnel flow and the oil was injected *downstream of the test section in order* to achieve more uniform particle size and distribution in the test section.

## 2.4 Test Conditions

All data were acquired under the following conditions;

Test section dynamic pressure, $q$ $= 0.2155 \times 10^4\ N/m^2$

Test section Reynolds' number $= 0.845 \times 10^6$

Test section Mach number $= 0.17$

Inboard section pitch angle $= 6.6°$

The pitch angle of the tip section and the its planform gives the following test matrix.

For spanwise lift measurement,

| $\theta$ tip | $\Delta\theta$ | Swept/Tapered | Rectangular |
|---|---|---|---|
| 7.3° | 0.6° | y | y |
| 2.3° | -4.3° | y | |
| -2.1° | -8.7° | y | y |
| -5.8° | -12.4° | y | |

For wake velocity scans,

| $\theta$ tip | $\Delta\theta$ | Swept/Tapered | Rectangular |
|---|---|---|---|
| 7.3° | 0.6° | y | |
| 2.3° | -4.3° | y | |
| -2.1° | -8.7° | y | |
| -5.8° | -12.4° | y | |

## 3. Laser Velocimeter Data Acquisition and Reduction Methods

The spanwise distribution of the sectional lift was calculated from the velocity distribution around a wing section by the circulation box method.

$$c_l = \frac{l}{q\,c_0} = \frac{\rho\,U_\infty\,\Gamma}{q\,c_0} \qquad (1)$$

where the circulation $\Gamma$ is defined as

$$\Gamma = \oint_c \vec{q} \cdot d\vec{s} \qquad (2)$$

Note that the integral path in equation (2) is defined in the clockwise direction. Since the velocity measurements were taken in a rectangular path indicated in Figure 7, for an infinitely thin wake equation (2) can be rewritten as

$$\Gamma = \int_{x_1}^{x_2} u\, dx \Big|_{z=z_2} + \int_{z_2}^{z_1} w\, dz \Big|_{x=x_2} + \int_{x_2}^{x_1} u\, dx \Big|_{z=z_1} + \int_{z_1}^{z_2} w\, dz \Big|_{x=x_1} \qquad (3)$$

Each integral was evaluated with Simpson's formula on a real-time basis. The number of data points on each side is determined in the following manner; The circulation measurement was first conducted with a large number of points, 21 points on both horizontal and vertical sides. The resulting sectional lift coefficient was assumed to be a true value for the purpose of establishing the baseline. The number of points was then decreased in order to minimize the data acquisition time as long as the contribution of the vertical sides and horizontal side to the sectional lift coefficient did not deviate from that of the baseline for more than 2 %. It was determined that fifteen points on the horizontal side and seven points on the vertical side met the requirement at most of the spanwise stations where the LV focal volume did not intersect the vortex core or the viscous wake. The vortex core could be detected by a sharp change in mean velocity, accompanied by a large turbulence level. A large turbulence level with a loss in mean velocity indicated a viscous wake. When such a phenomenon was observed, the circulation measurement was repeated with an increased number of data points along the entire rectangular path until a more accurate result was obtained

Since the circulation box computation required only the horizontal and vertical components, the cross-flow channel of the LV was disabled during the sectional lift measurement.

Three-component velocity surveys were also acquired behind the wing at the streamwise locations of $\bar{x} = 1.05$ and $\bar{x} = 3.50$. The velocity survey plane is in the range of $-2.5 \le \bar{y} \le 1.5$ and $-0.5 \le \bar{z} \le 0.5$ with an increment of 0.25 in both directions.

The total forces and moments on the tip section were also measured with the internal strain gage balance. For each run, ten measurements were taken and average values were obtained.

## 4. Computation with VSAERO Analysis

A steady, subsonic three-dimensional panel method was used to predict the lift behavior on the tip. Two different methods were attempted to panel the wind tunnel model. The first method treats the inboard section and the tip as one unit, with a short segment where a rapid transition in twist takes place. This method ignores the existence of the gap between the two sections and replaces it with a "flexible" section, which changes it shape depending on the pitch angle of the tip section. This can be seen as having a "rubber boot" between the inboard and tip sections. The second method treats the two sections as separate components. Although this model seems more realistic, two surfaces in close proximity are required to simulate the gap between the two sections. Since VSAERO is a discretized model, this can cause a control point to be too close to a singularity and may result in numerical instability. In order to avoid such numerical problem, the gap must be widened when the instability occurs.

Although the two paneling methods have different effects on the lift distribution on the inboard and tip sections near the junction, it has been determined that the inaccuracies introduced by both the flexible section or the wider gap (two to three times larger than reality) have little effect on the total three-dimensional lift on the inboard section or the tip. For the purpose of three-dimensional lift comparison presented in this paper, the first paneling method was selected for its numerical stability and simplicity in paneling.

A more detailed discussion on the paneling methods and their effects is given in Reference 4.

## 5. Results

The tabulated data for the spanwise lift distribution are presented in Appendix B. One table represents a one complete circulation box. The horizontal and vertical components of the local velocity vector, as well as their standard deviations, are printed for each measurement point. Each table also contains the resulting lift coefficient for the given section. Appendix C shows the wake velocity measurements with all three velocity components. All velocity data are presented in nondimensional form, normalized for the free stream velocity.

### 5.1 Spanwise Lift Distribution by Circulation Method

A typical velocity distribution along a circulation box is shown in Figure 8. The standard deviation of the mean velocity value, depicted as a error bar in the figure is the turbulence level measured by the LV. It was observed that the turbulence level increases when the LV focal volume is in the viscous wake of the wing.

Figures 9 and 10 show a spanwise distribution of the sectional lift for the swept / tapered tip and rectangular tip, respectively, computed by the circulation method for each tip pitch angle. When the tip pitch angle, $\theta_{tip}$ is set to -2.1° ($\Delta\theta$=-8.7°), positive lift is observed on the inboard part of the tip. This clearly suggests a presence of the upwash created by the secondary trailing vortex shed from the inboard / tip junction. When $\theta_{tip}$ is very small, the lift distribution is smooth due to the lack of strong vortex, except for the effect of the gap between two sections. Theoretically, the lift at the gap should be zero, simply because there is no lifting surface. However, the LV data indicate the presence of circulation over the gap because the focal volume tends to sense the circulation from both sides of the gap. Other factors, such as the spanwise length of the LV focal volume being approximately twice the size of the gap, existence of spanwise component of turbulence in the ambient flow, or a boundary layer effect in the gap, also have some contributions. No attempt was made to quantify each contribution to this phenomenon.

The sectional lift was integrated to yield a three-dimensional lift coefficient for each configuration and compared with the same lift coefficient obtained from the internal strain gage balance. Although the strain gage balance is designed to provide six-component of forces and moments, the particular balance used in this test had a problem with one of six strain gages and it has determined that only the lift component data are reliable. Therefore other components are not presented. The results of the lift coefficient, $\bar{C}_L$ and its standard deviation, $\delta_{C_L}$ measured by the strain gage balance are presented are Table 1. Linear interpolation / extrapolation of the balance data suggests that the zero lift pitch angles are -2.4° and -2.3° for the swept / tapered tip and rectangular tip, respectively. Since the sectional zero lift angle of attack for the V23010 is about +0.4° for the given test condition (Reference 5), this also indicates the effect of the secondary trailing vortex and its upwash acting on the tip.

The three-dimensional lift coefficient obtained from the LV, as well as the strain gage balance had a good agreement with the numerical prediction made by the lifting surface method, VSAERO. Figures 11 and 12 show three-dimensional lift coefficients as a function of differential tip pitch angle, obtained by the above three methods.

### 5.2 Velocity Survey Behind the Wing

Three-dimensional velocity surveys were obtained behind the wing to further substantiate the existence of the upwash and the relative strength of each vortex. The survey planes are located at $\bar{x}$ = 1.05. Figure 13 shows a typical velocity distribution in a survey line. A velocity vector map in $y$-$z$ plane was then generated to show a section of the trailing vortices in the wake. Velocity vector maps are shown in Figure 14 for different tip pitch angles for the swept / tapered tip. Note that the spanwise location of metric break is at 0.0 and the tip at -1.48.

In Figure 14(a), the difference in pitch angles between the tip and inboard section is small. A

conventional tip vortex can be observed and there is no apparent secondary vortex shed from the metric break can be seen. In Figure 14(b), the tip pitch angle was reduced to 2.3°. The tip is still carrying positive lift and is still generating a tip vortex in the same direction as before, although it is less prominent. The tip pitch angle was further reduced to -2.1° in Figure 14(c). The three dimensional lift on the tip is approximately zero. As indicated in Figure 9, however, the outboard section of the tip is carrying negative lift. This behavior can be seen as reversed direction of the tip vortex. This negative lift on the outboard tip is cancelled by the positive lift carried on the inboard portion of the tip, created by the upwash shown in the figure. The secondary vortex from the tip / inboard section junction becomes prominent. The secondary vortex becomes very apparent in Figure 14(d) where a large discontinuity in bound vorticity exists at the metric break.

It was observed that the required number of samples to satisfy the 95 % confidence level of $\pm 0.1$ *m/sec* increases significantly when the focal volume is in the proximity of the viscous wake or the vortex core. Due to the weak coupling with the orthogonal channels, the non-orthogonal channel, which yeilds the spanwise velocity component, tends to produce erroneous results when the turbulence level is high. The cross flow component in such areas presented in Figure 14 may contain a large amount of error for this reason. No attempt was made to correct this error.

## 6. Concluding Remarks

The spanwise lift distribution measurements and the velocity surveys around the semi-span wing have shown that the discontinuous twist near the wing tip can indeed create an upwash at the tip strong enough to generate a positive lift when the pitch angle of the tip is substantially negative, thus, contributing to the local drag reduction on the tip.

A more detailed analysis is required to further understand the aerodynamic environment of the rotor tip when such a discontinuous twist is applied to the rotor blade. Since numerical methods for a rotating rotor are still in an infant stage, a numerical method developed for a fixed wing is still a primary analysis tool for a rotor blade. The lift distribution and velocity data generated in this study should serve as a database to validate numerical results.

This type of drag reduction may also be applied to a fixed wing aircraft, and the tip extension with a discontinuous twist may be considered as an alternative to a winglet addition. Further investigations of the drag acting on the combined inboard and tip sections are suggested.

## 7. Reference


1) Kumagai, H. *Parametric Analysis of a Passive Cyclic Control Device for Helicopters*, NASA CR 166608, October 1984.

2) Stroub, R.H., Kumagai, H., Keys, C. *Wind Tunnel Test of a Model Rotor with a Free-Tip*, AIAA 86-1781, AIAA 4th Applied Aerodynamics Conference, San Diego, California, June 1986, AIAA CP865, pp 97.

3) Soderman, P.T. *Turbulence Measurements in the 7- by 10-Foot Wind Tunnel No. 1*, NASA FSA TM 19, April, 1979.

4) Martin, D. M., Fortin, P. E. *VSAERO Analysis of Tip Planforms for the Free-Tip Rotor*, NASA CR 177487, June, 1988.

5) U. S. Army, *U. S. Army Helicopter Design Datcom*, USAAMRLD CR 76-2, 1976.

# Appendix A

## Tables and Figures

| $\Delta\theta$ | $\bar{C}_L$ | $\delta_{C_L}$ | $C_L(LV)$ |
|---|---|---|---|
| 0.6° | 0.5011 | 0.0101 | 0.5006 |
| -4.3° | 0.2721 | 0.0068 | 0.2504 |
| -8.7° | 0.0205 | 0.0102 | 0.0067 |
| -12.4° | -0.2091 | 0.0182 | -0.2158 |

(a) Swept/Tapered Tip

| $\Delta\theta$ | $\bar{C}_L$ | $\delta_{C_L}$ | $C_L(LV)$ |
|---|---|---|---|
| 0.6° | 0.4638 | 0.0079 | 0.4697 |
| -8.7° | 0.0115 | 0.0047 | 0.0107 |

(b) Rectangular Tip

Table 1 Three dimensional lift, Task balance and LV

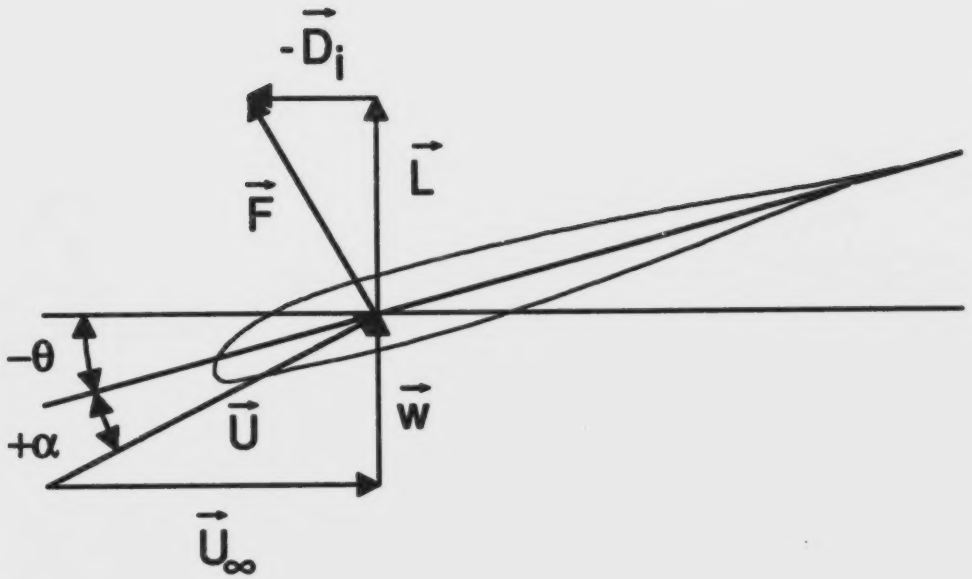


**Figure 1 Drag reduction due to upwash**

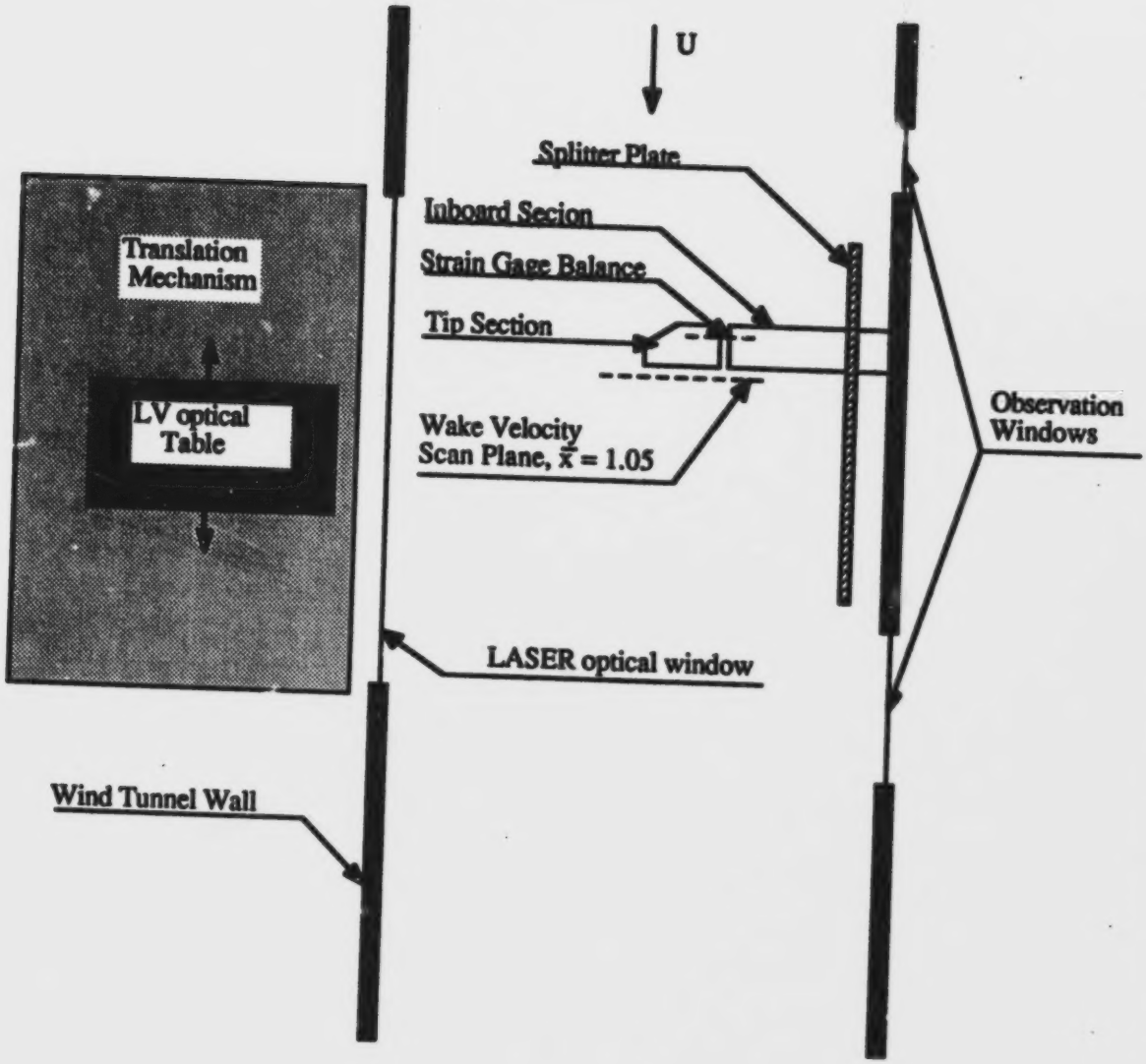


Figure 2 Model Set up in 7- by 10-ft Wind Tunnel

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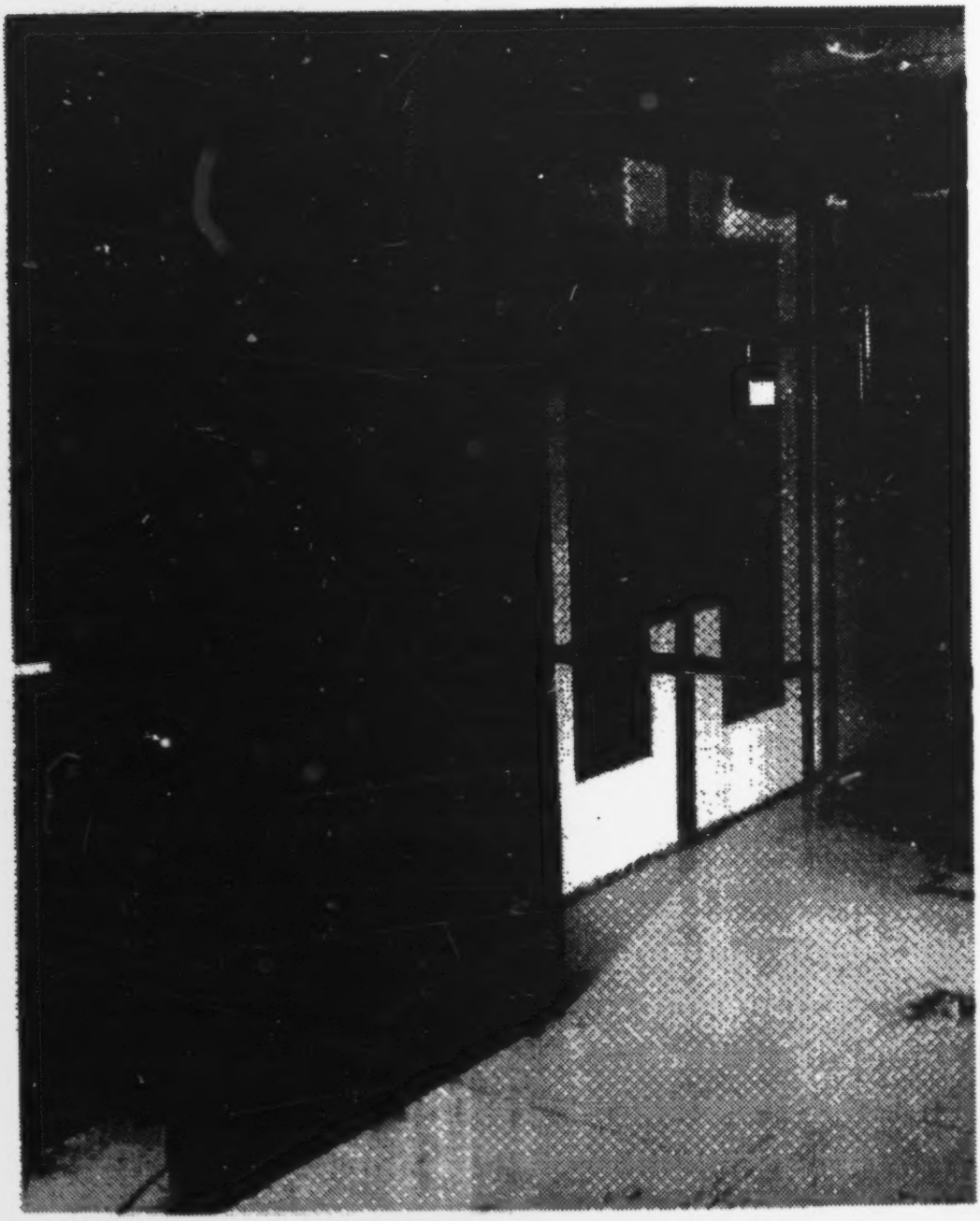

**Figure 3 Model Installation in the Test Section**

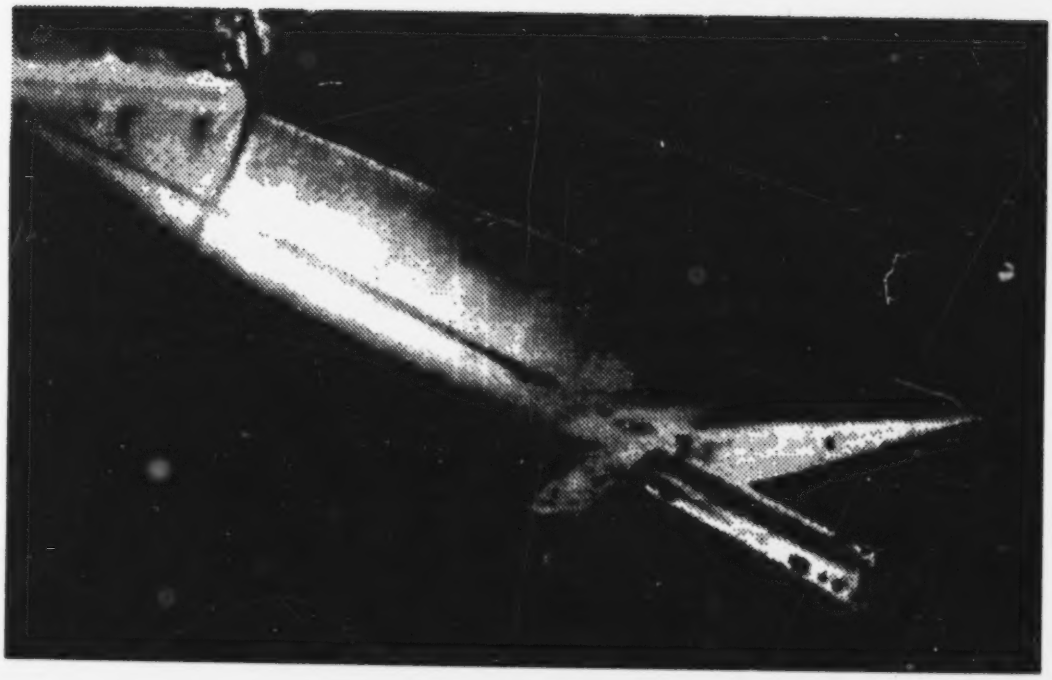

**Figure 4 Internal Strain Gage Balance**

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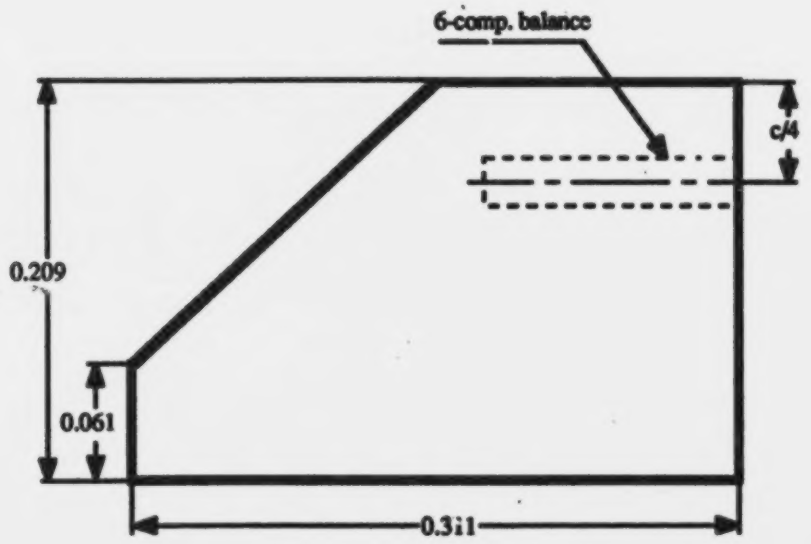
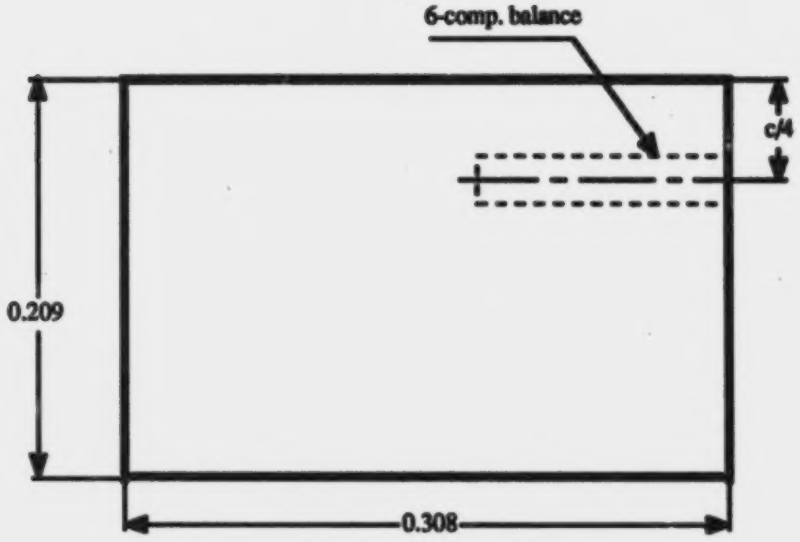



(a) Swept, tapered tip




(b) Rectangular tip

**Figure 5 Tip Planforms**

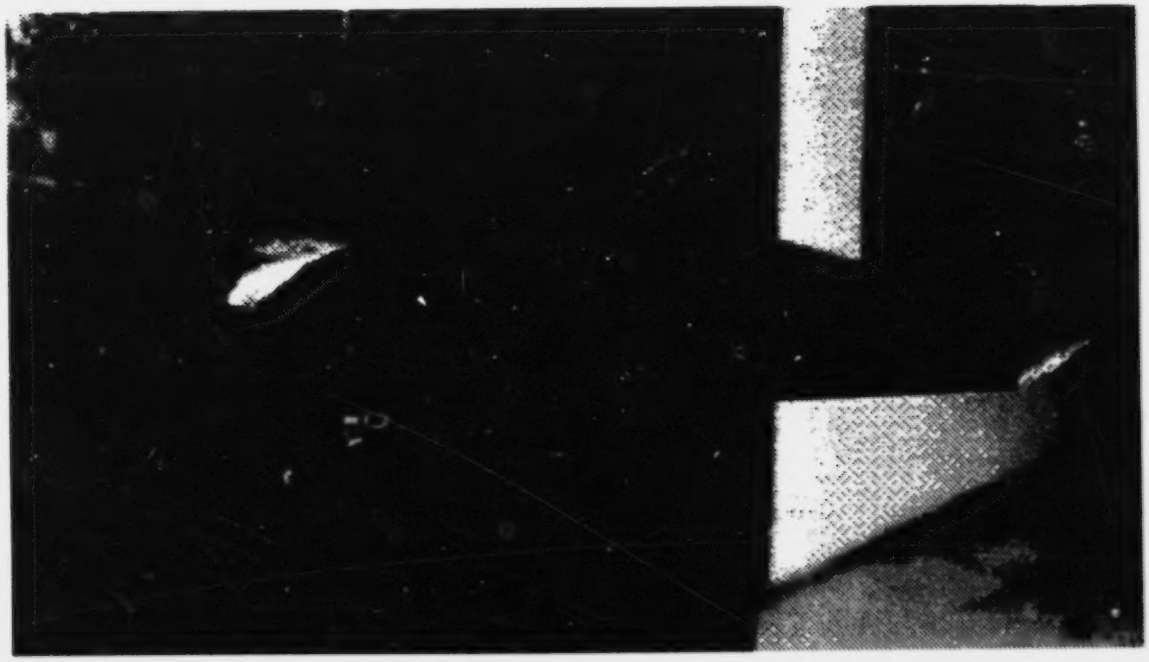


**Figure 6 Swept / Tapered Tip Installation**

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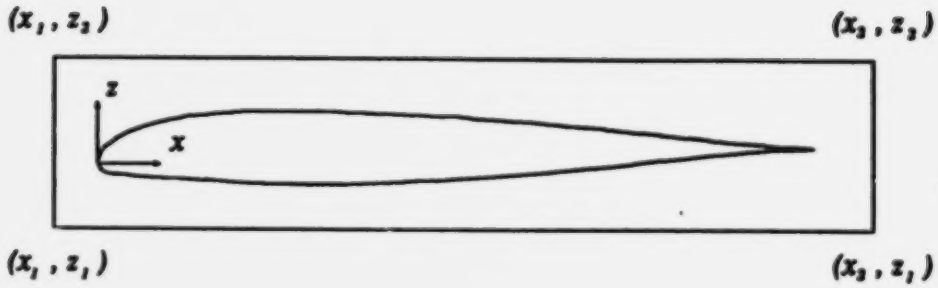



**Figure 7 Circulation Box Coordinates**

# LIFT COEFFICIENT BY CIRCULATION METHOD

$c_l = 0.463$ $\bar{y} = -0.496$ $n_h = 15$ $n_v = 7$ $\theta_t = -7.3$ ° $\theta_i = -6.7$ °

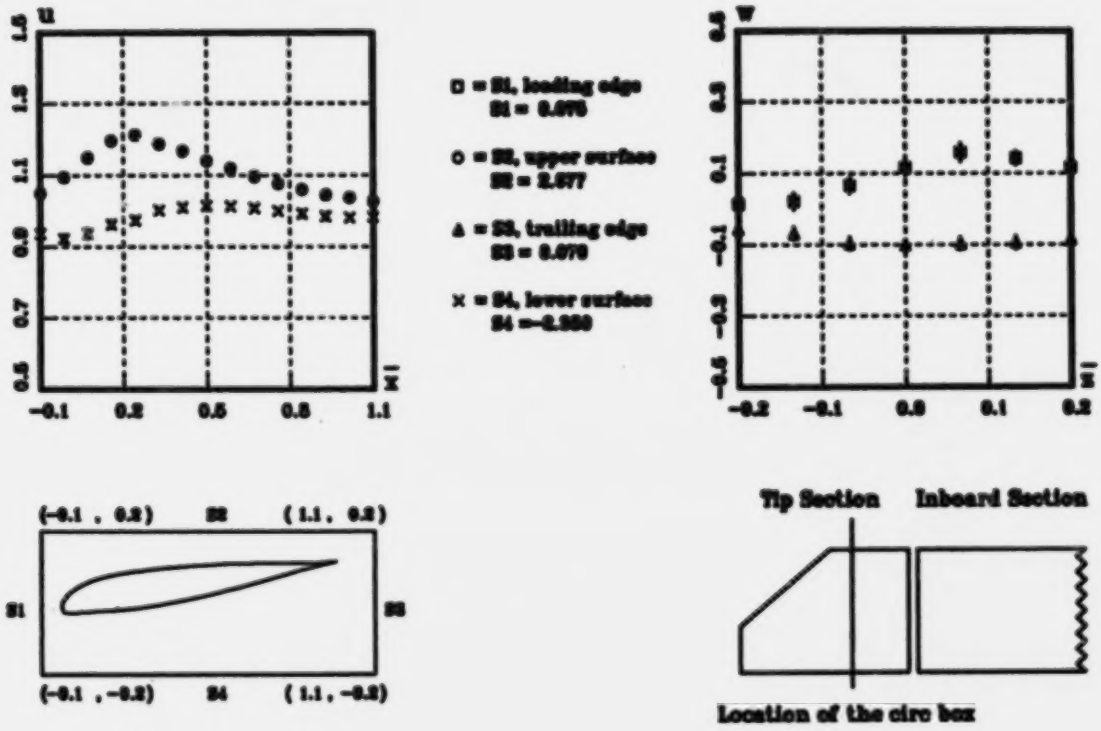



Figure 8 A typical circulation box measurement

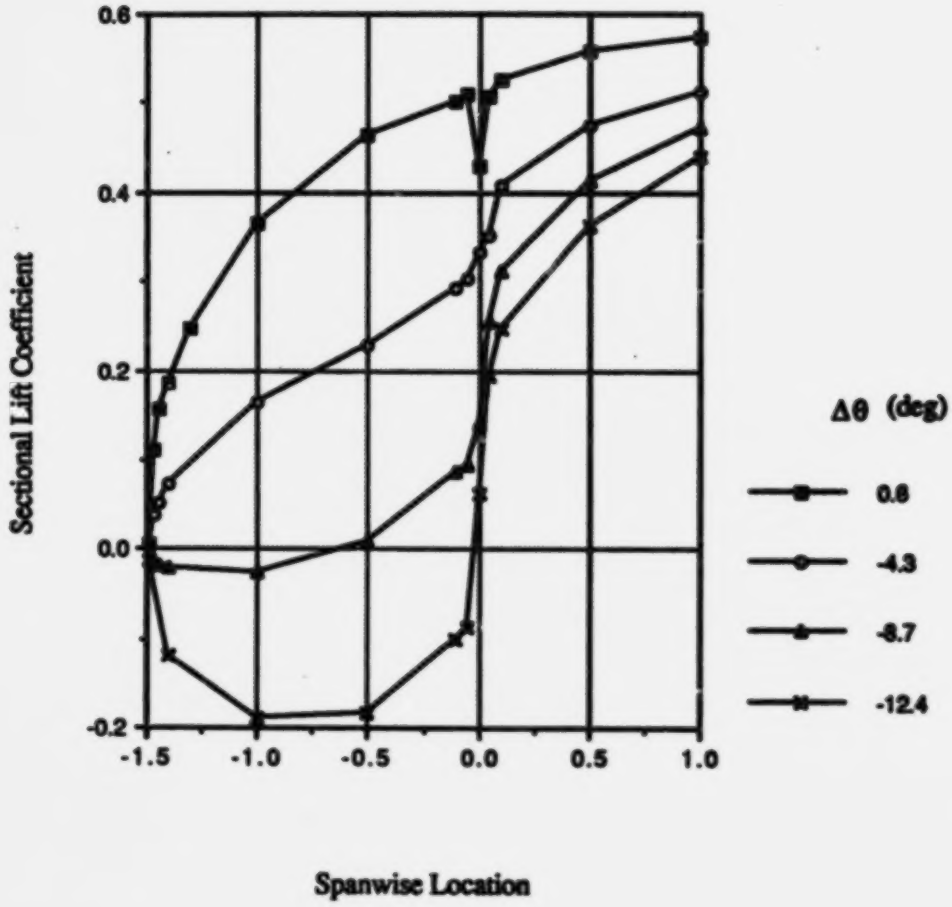



Figure 9 Spanwise Lift Distribution, Swept/Tapered Tip

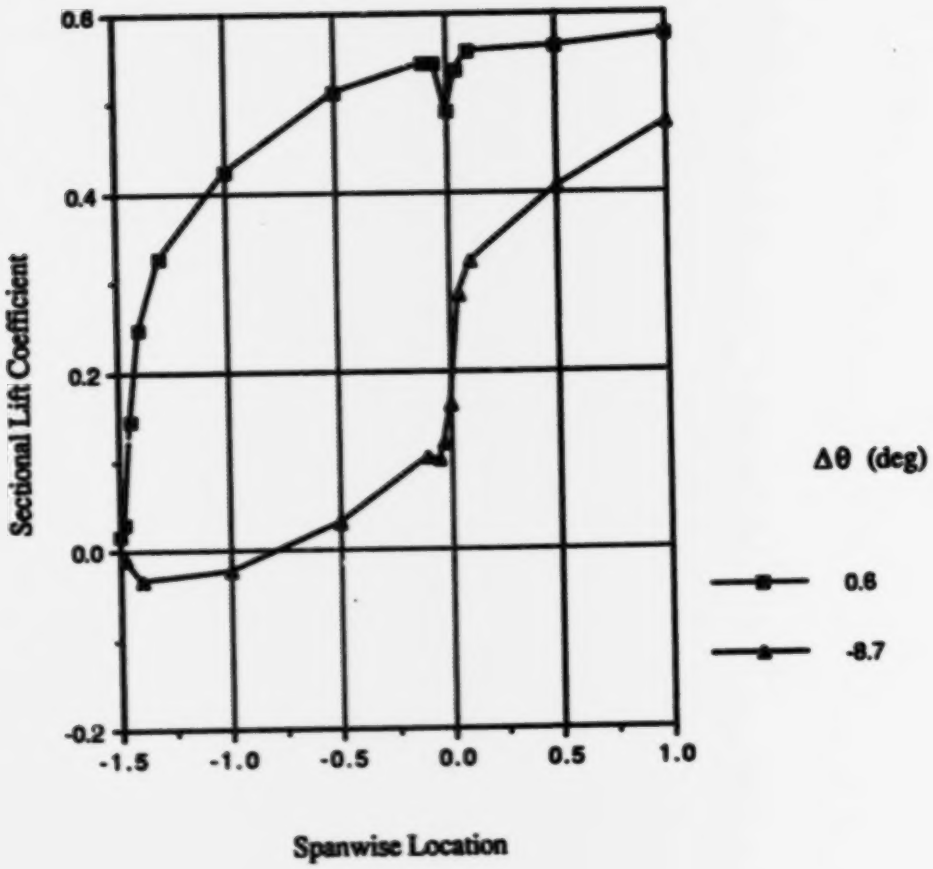



Figure 10 Spanwise Lift Distribution, Rectangular Tip

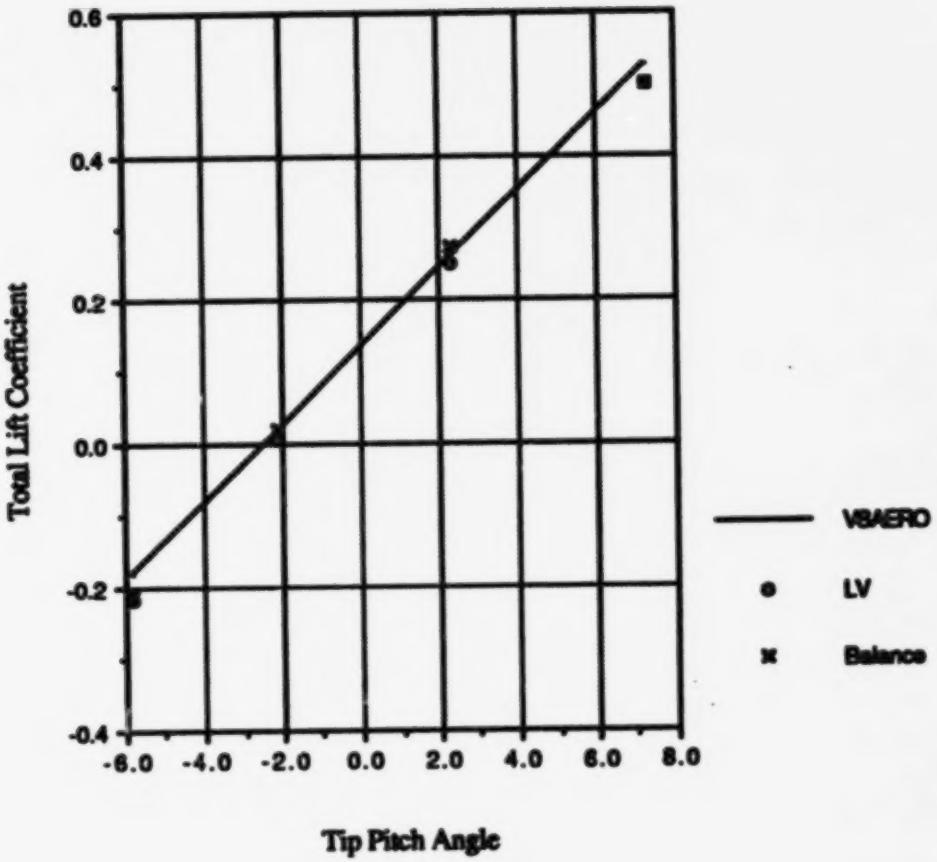



Figure 11 Three-Dimensional Lift Coefficient, Swept / Tapered Tip

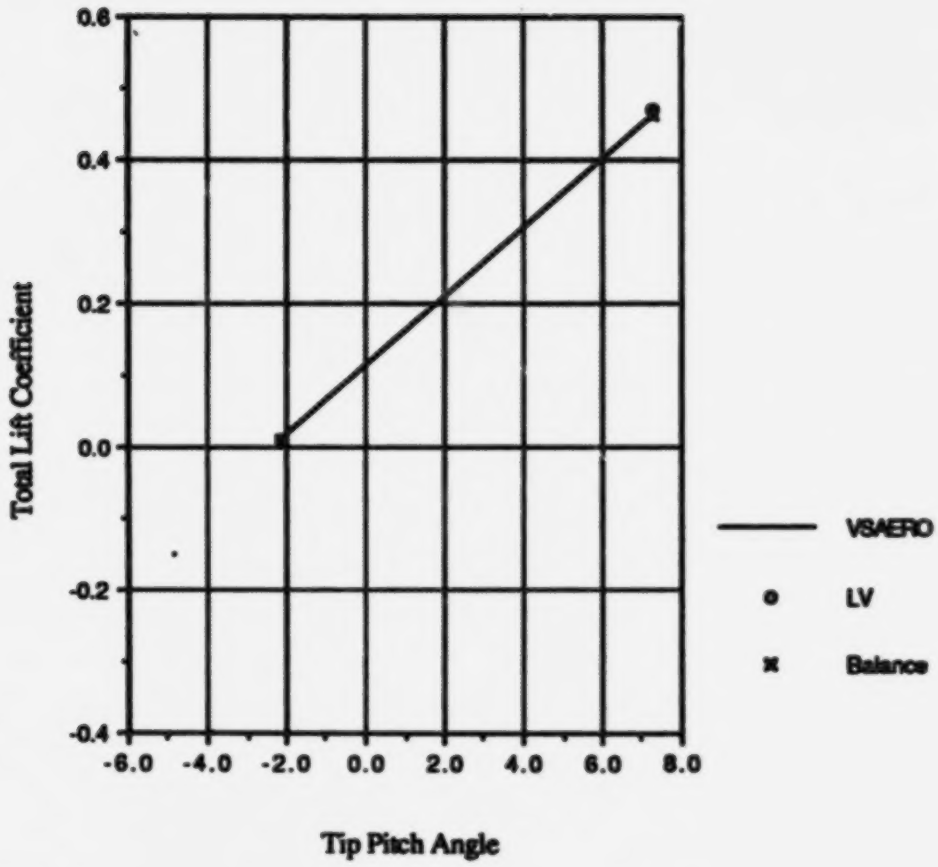



Figure 12 Three-Dimensional Lift Coefficient, Rectangular Tip

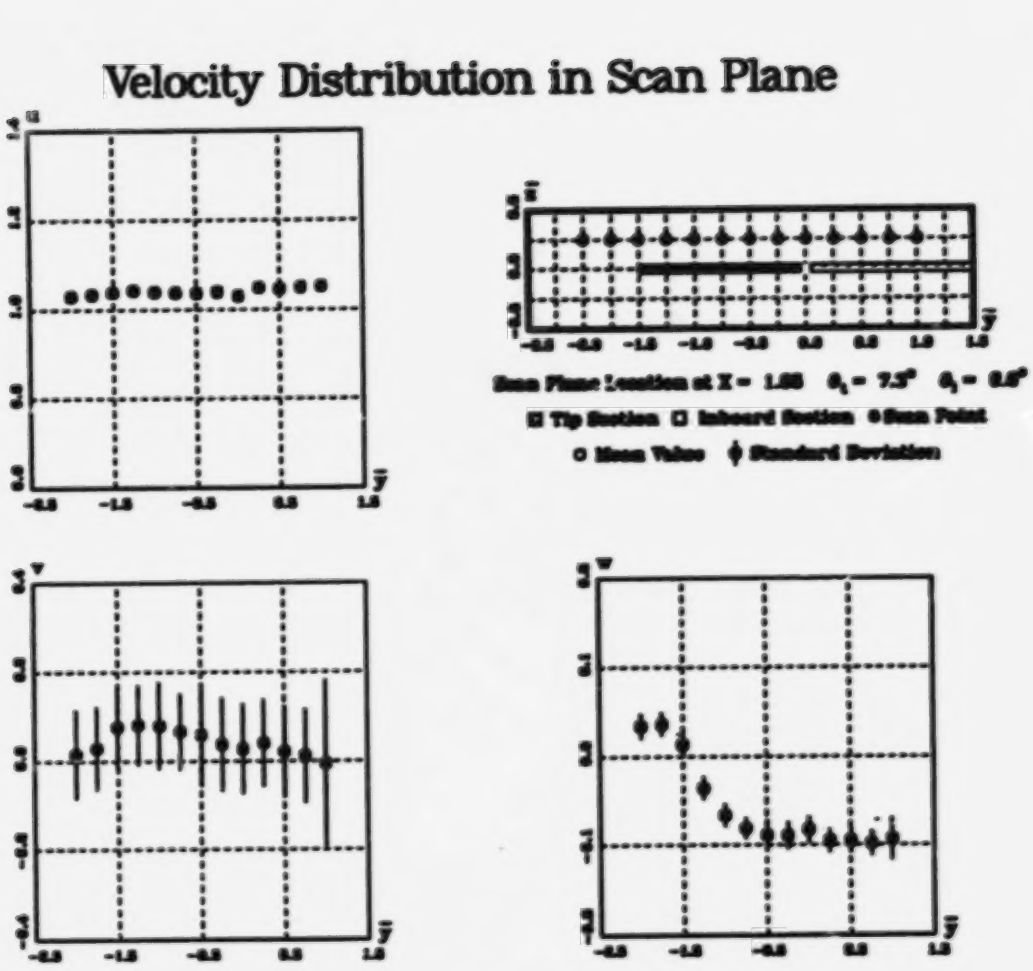
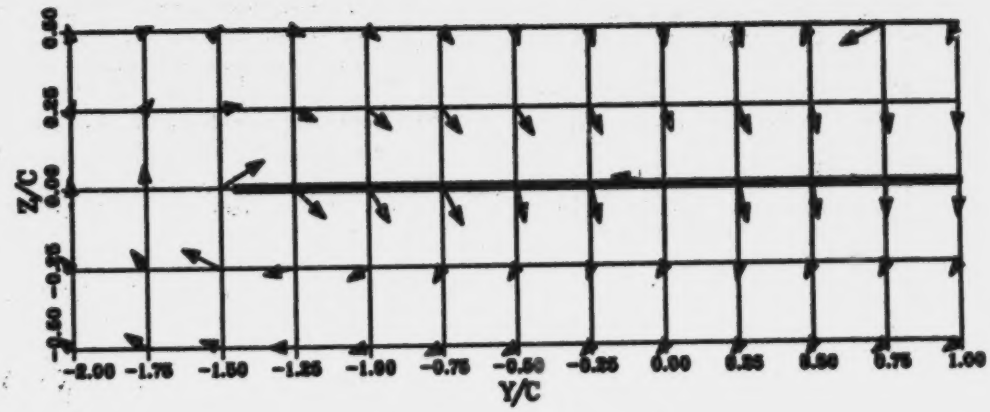



Figure 13 A Typical Wake Velocity Survey, Swept / Tapered Tip



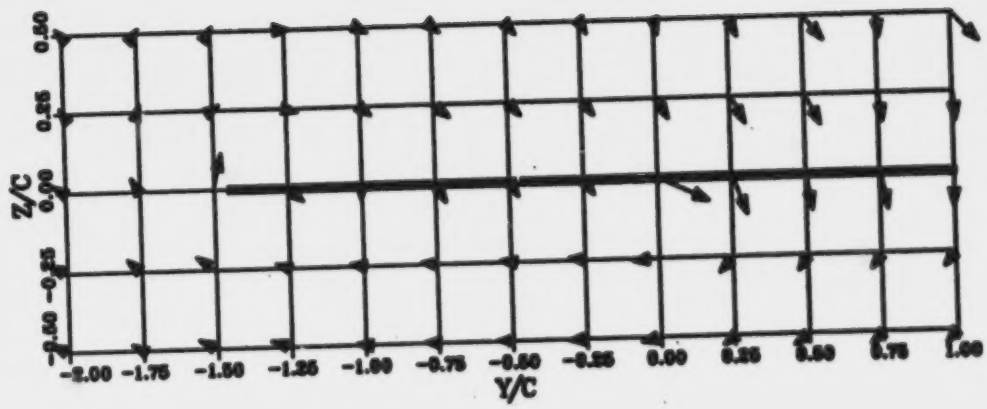

Legend

w = 0.1 U

v = 0.1 U

$\theta_t$ = 7.3 ° $\theta_l$ = 6.7 °

Figure 14(a) Velocity Survey at $\bar{x}$ =1.05



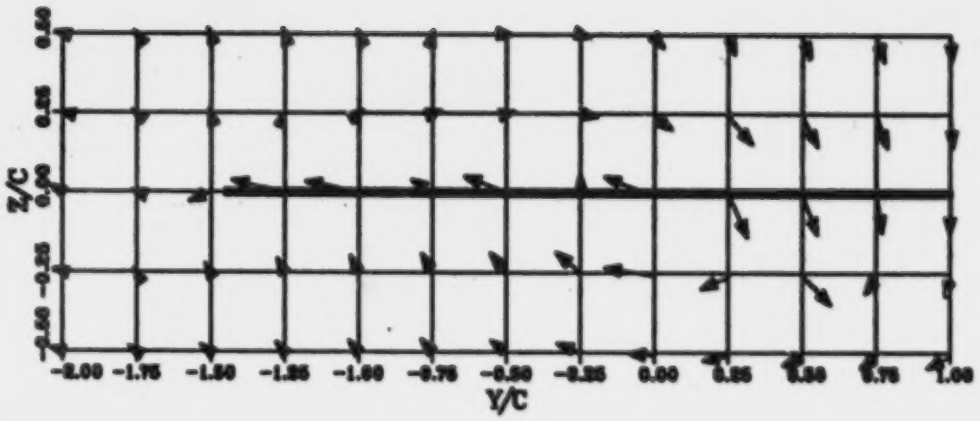

Legend

w = 0.1 U

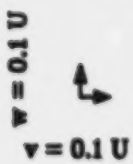
v = 0.1 U

$\theta_t$ = 2.3 °  $\theta_l$ = 6.7 °

Figure 14(b) Velocity Survey at $\bar{x}$ =1.05

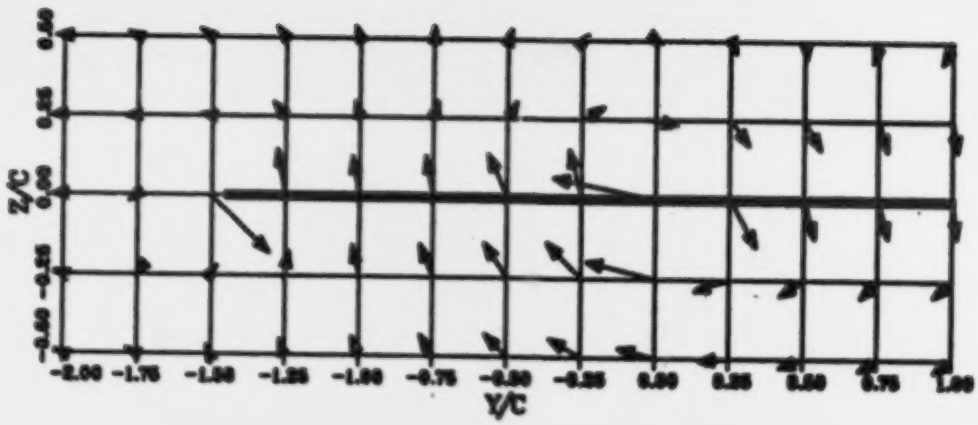



Legend




$\theta_t = -2.1$ °  $\theta_l = 6.7$ °

Figure 14(c) Velocity Survey at $\bar{x}$ =1.05




Legend

v = 0.1 U

$\theta_i = -5.8°$ $\theta_i = 6.7°$

v = 0.1 U

Figure 14(d) Velocity Survey at $\bar{x}$ =1.05

## Appendix B

## Circulation Box Measurement

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Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 17 at y/c = -1.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.99170E+00 | 0.73236E-02 | - | - | 0.24164E-01 | 0.22691E-01 |
| 2 | -0.10044E+00 | -0.15982E+00 | 0.98658E+00 | 0.59391E-02 | - | - | 0.22465E-01 | 0.15368E-01 |
| 3 | -0.10044E+00 | -0.11986E+00 | 0.98232E+00 | 0.64306E-02 | - | - | 0.24832E-01 | 0.18694E-01 |
| 4 | -0.10044E+00 | -0.79893E-01 | 0.97549E+00 | 0.67684E-02 | - | - | 0.39121E-01 | 0.23137E-01 |
| 5 | -0.10044E+00 | -0.39807E-01 | 0.97340E+00 | 0.73246E-02 | - | - | 0.43662E-01 | 0.20962E-01 |
| 6 | -0.10044E+00 | 0.15778E-03 | 0.97738E+00 | 0.10770E-01 | - | - | 0.66458E-01 | 0.21980E-01 |
| 7 | -0.10044E+00 | 0.40244E-01 | 0.98662E+00 | 0.66296E-02 | - | - | 0.80037E-01 | 0.23013E-01 |
| 8 | -0.10044E+00 | 0.80208E-01 | 0.10023E+01 | 0.68531E-02 | - | - | 0.85558E-01 | 0.21288E-01 |
| 9 | -0.10044E+00 | 0.12029E+00 | 0.10150E+01 | 0.73281E-02 | - | - | 0.82603E-01 | 0.23932E-01 |
| 10 | -0.10044E+00 | 0.16026E+00 | 0.10264E+01 | 0.69549E-02 | - | - | 0.77247E-01 | 0.20353E-01 |
| 11 | -0.10044E+00 | 0.20022E+00 | 0.10337E+01 | 0.93323E-02 | - | - | 0.69664E-01 | 0.21450E-01 |
| 12 | -0.99708E-01 | 0.20022E+00 | 0.10332E+01 | 0.69028E-02 | - | - | 0.63168E-01 | 0.15742E-01 |
| 13 | 0.20064E-01 | 0.20022E+00 | 0.10588E+01 | 0.82919E-02 | - | - | 0.74053E-01 | 0.19599E-01 |
| 14 | 0.14020E+00 | 0.20022E+00 | 0.10979E+01 | 0.92016E-02 | - | - | 0.91104E-01 | 0.34025E-01 |
| 15 | 0.26009E+00 | 0.20022E+00 | 0.11026E+01 | 0.90903E-02 | - | - | 0.48687E-01 | 0.26736E-01 |
| 16 | 0.38023E+00 | 0.20022E+00 | 0.10889E+01 | 0.90534E-02 | - | - | 0.27462E-01 | 0.19670E-01 |
| 17 | 0.50013E+00 | 0.20022E+00 | 0.10726E+01 | 0.94260E-02 | - | - | 0.14139E-01 | 0.20889E-01 |
| 18 | 0.62026E+00 | 0.20022E+00 | 0.10622E+01 | 0.73952E-02 | - | - | 0.95065E-02 | 0.17833E-01 |
| 19 | 0.74016E+00 | 0.20022E+00 | 0.10472E+01 | 0.70837E-02 | - | - | -0.60978E-04 | 0.17121E-01 |
| 20 | 0.86017E+00 | 0.20022E+00 | 0.10375E+01 | 0.70383E-02 | - | - | 0.19594E-01 | 0.14993E-01 |
| 21 | 0.98019E+00 | 0.20022E+00 | 0.10293E+01 | 0.79837E-02 | - | - | 0.18216E-01 | 0.20407E-01 |
| 22 | 0.11001E+01 | 0.20022E+00 | 0.10229E+01 | 0.85407E-02 | - | - | 0.32770E-01 | 0.20446E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10241E+01 | 0.74503E-02 | - | - | 0.31966E-01 | 0.20946E-01 |
| 24 | 0.11001E+01 | 0.15989E+00 | 0.10203E+01 | 0.73927E-02 | - | - | 0.34532E-01 | 0.20058E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10173E+01 | 0.77861E-02 | - | - | 0.50823E-01 | 0.22918E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10121E+01 | 0.79903E-02 | - | - | 0.85646E-01 | 0.23903E-01 |
| 27 | 0.11001E+01 | 0.39758E-01 | 0.10045E+01 | 0.95426E-02 | - | - | 0.15348E+00 | 0.29901E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.99243E+00 | 0.12227E-01 | - | - | 0.29474E+00 | 0.41301E-01 |
| 29 | 0.11001E+01 | -0.40293E-01 | 0.96345E+00 | 0.52594E-01 | - | - | 0.37483E+00 | 0.49980E-01 |
| 30 | 0.11001E+01 | -0.80258E-01 | 0.95076E+00 | 0.63909E-01 | - | - | 0.22950E+00 | 0.74735E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10251E+01 | 0.94352E-02 | - | - | 0.15256E+00 | 0.23961E-01 |
| 32 | 0.11001E+01 | -0.16019E+00 | 0.10191E+01 | 0.74824E-02 | - | - | 0.11011E+00 | 0.22714E-01 |
| 33 | 0.11001E+01 | -0.20027E+00 | 0.10163E+01 | 0.77215E-02 | - | - | 0.85239E-01 | 0.20422E-01 |
| 34 | 0.10996E+01 | -0.20027E+00 | 0.10156E+01 | 0.68416E-02 | - | - | 0.83534E-01 | 0.19787E-01 |
| 35 | 0.97982E+00 | -0.20027E+00 | 0.10126E+01 | 0.86047E-02 | - | - | 0.43537E-01 | 0.48516E-01 |
| 36 | 0.85981E+00 | -0.20027E+00 | 0.10234E+01 | 0.79829E-02 | - | - | 0.32014E-02 | 0.57324E-01 |
| 37 | 0.73991E+00 | -0.20027E+00 | 0.10278E+01 | 0.78314E-02 | - | - | -0.39893E-01 | 0.42992E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20027E+00 | 0.10330E+01 | 0.81052E-02 | - | - | -0.23290E-01 | 0.48090E-01 |
| 39 | 0.49988E+00 | -0.20027E+00 | 0.10403E+01 | 0.62805E-02 | - | - | -0.64407E-01 | 0.50155E-01 |
| 40 | 0.37987E+00 | -0.20027E+00 | 0.10373E+01 | 0.84215E-02 | - | - | -0.99401E-01 | 0.58897E-01 |
| 41 | 0.25961E+00 | -0.20027E+00 | 0.10308E+01 | 0.75689E-02 | - | - | -0.13835E+00 | 0.53581E-01 |
| 42 | 0.13984E+00 | -0.20027E+00 | 0.10151E+01 | 0.65646E-02 | - | - | -0.10901E+00 | 0.55763E-01 |
| 43 | 0.19578E-01 | -0.20027E+00 | 0.99897E+00 | 0.78563E-02 | - | - | -0.75261E-01 | 0.48198E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.99095E+00 | 0.67335E-02 | - | - | 0.43720E-02 | 0.24654E-01 |

I1 = 0.0459 I2 = 2.5497 I3 = -0.1226 I4 = -2.4533

Lift = 0.0196

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 16 at y/c = -1.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.99200E+00 | 0.68963E-02 | - | - | 0.13628E-01 | 0.14347E-01 |
| 2 | -0.10007E+00 | -0.15970E+00 | 0.98728E+00 | 0.72617E-02 | - | - | 0.22023E-01 | 0.15766E-01 |
| 3 | -0.10007E+00 | -0.11974E+00 | 0.98317E+00 | 0.83751E-02 | - | - | 0.33350E-01 | 0.18349E-01 |
| 4 | -0.10007E+00 | -0.79772E-01 | 0.97930E+00 | 0.87108E-02 | - | - | 0.37429E-01 | 0.12780E-01 |
| 5 | -0.10007E+00 | -0.39928E-01 | 0.97644E+00 | 0.72464E-02 | - | - | 0.44532E-01 | 0.16999E-01 |
| 6 | -0.10007E+00 | 0.15778E-03 | 0.98046E+00 | 0.12542E-01 | - | - | 0.61814E-01 | 0.15908E-01 |
| 7 | -0.10007E+00 | 0.40123E-01 | 0.98917E+00 | 0.82487E-02 | - | - | 0.70166E-01 | 0.16140E-01 |
| 8 | -0.10007E+00 | 0.80087E-01 | 0.10021E+01 | 0.82936E-02 | - | - | 0.78438E-01 | 0.16531E-01 |
| 9 | -0.10007E+00 | 0.12017E+00 | 0.10162E+01 | 0.81493E-02 | - | - | 0.76094E-01 | 0.16530E-01 |
| 10 | -0.10007E+00 | 0.16014E+00 | 0.10251E+01 | 0.74464E-02 | - | - | 0.77765E-01 | 0.13505E-01 |
| 11 | -0.10007E+00 | 0.20010E+00 | 0.10326E+01 | 0.70795E-02 | - | - | 0.68306E-01 | 0.16046E-01 |
| 12 | -0.99344E-01 | 0.20010E+00 | 0.10293E+01 | 0.81048E-02 | - | - | 0.57130E-01 | 0.11672E-01 |
| 13 | 0.20428E-01 | 0.20010E+00 | 0.10601E+01 | 0.63624E-02 | - | - | 0.84404E-01 | 0.14768E-01 |
| 14 | 0.14020E+00 | 0.20010E+00 | 0.10883E+01 | 0.74288E-02 | - | - | 0.72168E-01 | 0.34684E-01 |
| 15 | 0.26034E+00 | 0.20010E+00 | 0.10953E+01 | 0.71684E-02 | - | - | 0.40040E-01 | 0.18137E-01 |
| 16 | 0.38023E+00 | 0.20010E+00 | 0.10879E+01 | 0.78760E-02 | - | - | 0.209x6E-01 | 0.14252E-01 |
| 17 | 0.50037E+00 | 0.20010E+00 | 0.10727E+01 | 0.74266E-02 | - | - | 0.15094E-01 | 0.15142E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10602E+01 | 0.79797E-02 | - | - | 0.14167E-01 | 0.15291E-01 |
| 19 | 0.74028E+00 | 0.20010E+00 | 0.10466E+01 | 0.85405E-02 | - | - | 0.51340E-02 | 0.15411E-01 |
| 20 | 0.86041E+00 | 0.20010E+00 | 0.10336E+01 | 0.83390E-02 | - | - | 0.70009E-02 | 0.11779E-01 |
| 21 | 0.98006E+00 | 0.20010E+00 | 0.10269E+01 | 0.79835E-02 | - | - | 0.19513E-01 | 0.12775E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10180E+01 | 0.75811E-02 | - | - | 0.31725E-01 | 0.16238E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10227E+01 | 0.74677E-02 | - | - | 0.244?8E-01 | 0.17038E-01 |
| 24 | 0.11001E+01 | 0.15977E+00 | 0.10189E+01 | 0.82854E-02 | - | - | 0.34440E-01 | 0.16501E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10143E+01 | 0.80725E-02 | - | - | 0.60198E-01 | 0.16391E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10107E+01 | 0.92169E-02 | - | - | 0.90407E-01 | 0.25158E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.10043E+01 | 0.97708E-02 | - | - | 0.15262E+00 | 0.27515E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.99237E+00 | 0.11314E-01 | - | - | 0.30705E+00 | 0.45219E-01 |
| 29 | 0.11001E+01 | -0.40171E-01 | 0.94973E+00 | 0.53530E-01 | - | - | 0.38289E+00 | 0.53592E-01 |
| 30 | 0.11001E+01 | -0.80136E-01 | 0.95892E+00 | 0.59606E-01 | - | - | 0.19502E+00 | 0.66448E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10210E+01 | 0.98556E-02 | - | - | 0.14572E+00 | 0.17690E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10182E+01 | 0.82277E-02 | - | - | 0.10844E+00 | 0.13743E-01 |
| 33 | 0.11001E+01 | -0.20027E+00 | 0.10131E+01 | 0.79319E-02 | - | - | 0.88769E-01 | 0.12154E-01 |
| 34 | 0.10995E+01 | -0.20027E+00 | 0.10148E+01 | 0.79021E-02 | - | - | 0.82435E-01 | 0.14294E-01 |
| 35 | 0.97982E+00 | -0.20027E+00 | 0.10146E+01 | 0.10350E-01 | - | - | 0.82218E-01 | 0.43189E-01 |
| 36 | 0.85981E+00 | -0.20027E+00 | 0.10214E+01 | 0.77380E-02 | - | - | 0.64743E-01 | 0.44195E-01 |
| 37 | 0.73967E+00 | -0.20027E+00 | 0.10318E+01 | 0.72616E-02 | - | - | 0.36040E-01 | 0.45036E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20027E+00 | 0.10353E+01 | 0.81304E-02 | - | - | 0.63058E-01 | 0.17198E-01 |
| 39 | 0.49976E+00 | -0.20027E+00 | 0.10340E+01 | 0.80035E-02 | - | - | 0.53078E-01 | 0.41667E-01 |
| 40 | 0.37950E+00 | -0.20027E+00 | 0.10328E+01 | 0.78876E-02 | - | - | 0.33056E-01 | 0.47126E-01 |
| 41 | 0.25973E+00 | -0.20027E+00 | 0.10272E+01 | 0.82044E-02 | - | - | -0.13120E-01 | 0.50949E-01 |
| 42 | 0.13959E+00 | -0.20027E+00 | 0.10130E+01 | 0.69816E-02 | - | - | 0.36897E-02 | 0.27840E-01 |
| 43 | 0.19700E-01 | -0.20027E+00 | 0.99437E+00 | 0.85048E-02 | - | - | 0.11116E-01 | 0.17872E-01 |
| 44 | -0.10032E+00 | -0.20027E+00 | 0.98994E+00 | 0.75219E-02 | - | - | 0.24481E-01 | 0.14683E-01 |

I1 = 0.0437 I2 = 2.5435 I3 = -0.1210 I4 = -2.4494

Lift = 0.0168

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 15 at y/c = -1.483

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.98734E+00 | 0.99251E-02 | - | - | 0.18589E-01 | 0.16355E-01 |
| 2 | -0.10019E+00 | -0.15970E+00 | 0.98349E+00 | 0.80671E-02 | - | - | 0.20279E-01 | 0.13621E-01 |
| 3 | -0.10019E+00 | -0.11974E+00 | 0.97754E+00 | 0.85916E-02 | - | - | 0.26062E-01 | 0.16358E-01 |
| 4 | -0.10019E+00 | -0.79772E-01 | 0.97171E+00 | 0.91124E-02 | - | - | 0.37446E-01 | 0.17539E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.96873E+00 | 0.79549E-02 | - | - | 0.42978E-01 | 0.16505E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.97007E+00 | 0.12278E-01 | - | - | 0.63932E-01 | 0.19971E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.98116E+00 | 0.77683E-02 | - | - | 0.70463E-01 | 0.15081E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.99713E+00 | 0.73271E-02 | - | - | 0.77484E-01 | 0.16437E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10117E+01 | 0.72831E-02 | - | - | 0.79400E-01 | 0.15706E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10240E+01 | 0.88782E-02 | - | - | 0.80626E-01 | 0.15970E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10331E+01 | 0.85668E-02 | - | - | 0.68152E-01 | 0.15867E-01 |
| 12 | -0.99465E-01 | 0.20010E+00 | 0.10308E+01 | 0.83050E-02 | - | - | 0.62151E-01 | 0.14211E-01 |
| 13 | 0.20307E-01 | 0.20010E+00 | 0.10621E+01 | 0.73970E-02 | - | - | 0.81945E-01 | 0.14771E-01 |
| 14 | 0.14008E+00 | 0.20010E+00 | 0.10990E+01 | 0.97703E-02 | - | - | 0.77624E-01 | 0.23367E-01 |
| 15 | 0.26034E+00 | 0.20010E+00 | 0.11033E+01 | 0.90223E-02 | - | - | 0.34831E-01 | 0.16421E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.10957E+01 | 0.67859E-02 | - | - | 0.19987E-01 | 0.16981E-01 |
| 17 | 0.50037E+00 | 0.20010E+00 | 0.10756E+01 | 0.80783E-02 | - | - | 0.24730E-02 | 0.95457E-02 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10605E+01 | 0.79851E-02 | - | - | -0.83189E-02 | 0.14800E-01 |
| 19 | 0.74028E+00 | 0.20010E+00 | 0.10495E+01 | 0.74083E-02 | - | - | -0.20193E-02 | 0.16324E-01 |
| 20 | 0.86029E+00 | 0.20010E+00 | 0.10364E+01 | 0.74185E-02 | - | - | 0.63629E-02 | 0.16629E-01 |
| 21 | 0.98006E+00 | 0.20010E+00 | 0.10278E+01 | 0.10471E-01 | - | - | 0.98077E-02 | 0.13239E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10225E+01 | 0.78602E-02 | - | - | 0.26962E-01 | 0.16405E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10227E+01 | 0.87102E-02 | - | - | 0.12250E-01 | 0.14538E-01 |
| 24 | 0.11001E+01 | 0.15977E+00 | 0.10196E+01 | 0.78644E-02 | - | - | 0.24388E-01 | 0.14359E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10144E+01 | 0.75693E-02 | - | - | 0.42692E-01 | 0.18347E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10122E+01 | 0.92237E-02 | - | - | 0.67772E-01 | 0.18948E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.10043E+01 | 0.92802E-02 | - | - | 0.11624E+00 | 0.29088E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.98899E+00 | 0.18371E-01 | - | - | 0.27856E+00 | 0.44687E-01 |
| 29 | 0.11001E+01 | -0.40171E-01 | 0.98983E+00 | 0.53525E-01 | - | - | 0.38992E+00 | 0.52787E-01 |
| 30 | 0.11001E+01 | -0.80136E-01 | 0.92369E+00 | 0.59418E-01 | - | - | 0.28398E+00 | 0.79207E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10253E+01 | 0.10098E-01 | - | - | 0.13160E+00 | 0.17638E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10171E+01 | 0.85282E-02 | - | - | 0.93288E-01 | 0.14746E-01 |
| 33 | 0.11001E+01 | -0.20015E+00 | 0.10149E+01 | 0.72081E-02 | - | - | 0.71907E-01 | 0.13868E-01 |
| 34 | 0.10995E+01 | -0.20015E+00 | 0.10145E+01 | 0.64603E-02 | - | - | 0.70344E-01 | 0.12317E-01 |
| 35 | 0.97982E+00 | -0.20015E+00 | 0.10109E+01 | 0.77440E-02 | - | - | 0.61470E-01 | 0.43968E-01 |
| 36 | 0.85981E+00 | -0.20015E+00 | 0.10191E+01 | 0.74388E-02 | - | - | 0.37148E-01 | 0.53013E-01 |
| 37 | 0.73967E+00 | -0.20015E+00 | 0.10318E+01 | 0.80699E-02 | - | - | -0.10084E-01 | 0.50738E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20015E+00 | 0.10347E+01 | 0.75783E-02 | - | - | 0.57777E-01 | 0.13383E-01 |
| 39 | 0.49964E+00 | -0.20015E+00 | 0.10381E+01 | 0.71541E-02 | - | - | 0.45620E-01 | 0.46629E-01 |
| 40 | 0.37987E+00 | -0.20015E+00 | 0.10364E+01 | 0.71522E-02 | - | - | 0.26212E-01 | 0.48637E-01 |
| 41 | 0.25973E+00 | -0.20015E+00 | 0.10261E+01 | 0.84391E-02 | - | - | 0.63146E-02 | 0.47862E-01 |
| 42 | 0.13984E+00 | -0.20015E+00 | 0.10105E+01 | 0.83373E-02 | - | - | 0.10221E-01 | 0.21339E-01 |
| 43 | 0.19700E-01 | -0.20015E+00 | 0.99375E+00 | 0.95433E-02 | - | - | -0.22090E-02 | 0.18575E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.99050E+00 | 0.81525E-02 | - | - | 0.53817E-02 | 0.10753E-01 |

I1 = 0.0438 I2 = 2.5528 I3 = -0.1183 I4 = -2.4487

Lift = 0.0296

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 14 at y/c = -1.452

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.98279E+00 | 0.78533E-02 | - | - | 0.11679E-01 | 0.17000E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.97738E+00 | 0.74456E-02 | - | - | 0.17905E-01 | 0.16757E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.96761E+00 | 0.83599E-02 | - | - | 0.21691E-01 | 0.18924E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.95777E+00 | 0.90164E-02 | - | - | 0.30057E-01 | 0.16202E-01 |
| 5 | -0.10019E+00 | -0.39807E-01 | 0.94946E+00 | 0.88721E-02 | - | - | 0.46962E-01 | 0.20103E-01 |
| 6 | -0.10019E+00 | 0.27892E-03 | 0.95412E+00 | 0.15226E-01 | - | - | 0.69683E-01 | 0.19196E-01 |
| 7 | -0.10019E+00 | 0.40244E-01 | 0.96861E+00 | 0.86536E-02 | - | - | 0.85307E-01 | 0.20360E-01 |
| 8 | -0.10019E+00 | 0.80208E-01 | 0.98932E+00 | 0.71199E-02 | - | - | 0.94137E-01 | 0.20712E-01 |
| 9 | -0.10019E+00 | 0.12029E+00 | 0.10098E+01 | 0.75239E-02 | - | - | 0.95326E-01 | 0.19197E-01 |
| 10 | -0.10019E+00 | 0.16026E+00 | 0.10239E+01 | 0.76555E-02 | - | - | 0.85956E-01 | 0.18895E-01 |
| 11 | -0.10019E+00 | 0.20022E+00 | 0.10343E+01 | 0.82473E-02 | - | - | 0.83555E-01 | 0.18216E-01 |
| 12 | -0.99587E-01 | 0.20022E+00 | 0.10384E+01 | 0.82779E-02 | - | - | 0.85439E-01 | 0.17927E-01 |
| 13 | 0.20185E-01 | 0.20022E+00 | 0.10693E+01 | 0.98623E-02 | - | - | 0.10115E+00 | 0.19789E-01 |
| 14 | 0.14008E+00 | 0.20022E+00 | 0.11158E+01 | 0.98916E-02 | - | - | 0.87961E-01 | 0.28600E-01 |
| 15 | 0.26034E+00 | 0.20022E+00 | 0.11172E+01 | 0.10277E-01 | - | - | 0.34353E-01 | 0.20505E-01 |
| 16 | 0.38011E+00 | 0.20022E+00 | 0.11006E+01 | 0.11364E-01 | - | - | -0.42694E-03 | 0.17141E-01 |
| 17 | 0.50013E+00 | 0.20022E+00 | 0.10811E+01 | 0.10057E-01 | - | - | -0.13567E-01 | 0.17451E-01 |
| 18 | 0.62014E+00 | 0.20022E+00 | 0.10626E+01 | 0.10780E-01 | - | - | -0.24508E-01 | 0.17147E-01 |
| 19 | 0.74028E+00 | 0.20022E+00 | 0.10516E+01 | 0.79517E-02 | - | - | -0.18577E-01 | 0.12768E-01 |
| 20 | 0.86017E+00 | 0.20022E+00 | 0.10384E+01 | 0.88529E-02 | - | - | -0.12283E-01 | 0.18011E-01 |
| 21 | 0.98006E+00 | 0.20022E+00 | 0.10297E+01 | 0.10041E-01 | - | - | -0.11743E-01 | 0.18816E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10235E+01 | 0.79671E-02 | - | - | 0.63956E-02 | 0.16493E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10220E+01 | 0.84072E-02 | - | - | 0.28940E-02 | 0.16074E-01 |
| 24 | 0.11002E+01 | 0.15989E+00 | 0.10199E+01 | 0.10090E-01 | - | - | 0.34200E-02 | 0.19718E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10160E+01 | 0.86225E-02 | - | - | 0.10034E-01 | 0.18684E-01 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.10131E+01 | 0.88763E-02 | - | - | 0.11013E-01 | 0.19990E-01 |
| 27 | 0.11002E+01 | 0.39758E-01 | 0.10079E+01 | 0.10116E-01 | - | - | 0.23305E-01 | 0.31081E-01 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.10015E+01 | 0.22166E-01 | - | - | -0.75910E-02 | 0.61093E-01 |
| 29 | 0.11002E+01 | -0.40293E-01 | 0.10716E+01 | 0.46996E-01 | - | - | -0.11676E+00 | 0.67250E-01 |
| 30 | 0.11002E+01 | -0.80258E-01 | 0.99050E+00 | 0.43242E-01 | - | - | 0.16066E+00 | 0.70776E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.10229E+01 | 0.85562E-02 | - | - | 0.66656E-01 | 0.25599E-01 |
| 32 | 0.11002E+01 | -0.16019E+00 | 0.10155E+01 | 0.83103E-02 | - | - | 0.57233E-01 | 0.17512E-01 |
| 33 | 0.11002E+01 | -0.20027E+00 | 0.10137E+01 | 0.77609E-02 | - | - | 0.48545E-01 | 0.14927E-01 |
| 34 | 0.10996E+01 | -0.20027E+00 | 0.10164E+01 | 0.69665E-02 | - | - | 0.49076E-01 | 0.14813E-01 |
| 35 | 0.97970E+00 | -0.20027E+00 | 0.10078E+01 | 0.76562E-02 | - | - | 0.36887E-01 | 0.48902E-01 |
| 36 | 0.85993E+00 | -0.20027E+00 | 0.10184E+01 | 0.11671E-01 | - | - | -0.11963E-01 | 0.55691E-01 |
| 37 | 0.73979E+00 | -0.20027E+00 | 0.10266E+01 | 0.11927E-01 | - | - | -0.63284E-01 | 0.51373E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20027E+00 | 0.10352E+01 | 0.11069E-01 | - | - | -0.16776E-01 | 0.46367E-01 |
| 39 | 0.49988E+00 | -0.20027E+00 | 0.10373E+01 | 0.10321E-01 | - | - | -0.67531E-01 | 0.57387E-01 |
| 40 | 0.37987E+00 | -0.20027E+00 | 0.10360E+01 | 0.11270E-01 | - | - | -0.11392E+00 | 0.51941E-01 |
| 41 | 0.25973E+00 | -0.20027E+00 | 0.10278E+01 | 0.11450E-01 | - | - | -0.15652E+00 | 0.53830E-01 |
| 42 | 0.13984E+00 | -0.20027E+00 | 0.10107E+01 | 0.11614E-01 | - | - | -0.11662E+00 | 0.54812E-01 |
| 43 | 0.19700E-01 | -0.20027E+00 | 0.99184E+00 | 0.12171E-01 | - | - | -0.85788E-01 | 0.53953E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.98446E+00 | 0.11113E-01 | - | - | 0.10387E-01 | 0.29963E-01 |

I1 = 0.0676 I2 = 2.5674 I3 = -0.0244 I4 = -2.4454

Lift = 0.1451

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 13 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.97548E+00 | 0.89084E-02 | - | - | 0.11776E-01 | 0.12077E-01 |
| 2 | -0.10019E+00 | -0.15970E+00 | 0.96763E+00 | 0.96955E-02 | - | - | 0.84972E-02 | 0.16089E-01 |
| 3 | -0.10019E+00 | -0.11974E+00 | 0.95636E+00 | 0.81763E-02 | - | - | 0.23771E-01 | 0.15793E-01 |
| 4 | -0.10019E+00 | -0.79772E-01 | 0.94436E+00 | 0.98620E-02 | - | - | 0.34182E-01 | 0.13884E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.93500E+00 | 0.77002E-02 | - | - | 0.45861E-01 | 0.14207E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.93907E+00 | 0.15769E-01 | - | - | 0.63205E-01 | 0.10973E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.95403E+00 | 0.80325E-02 | - | - | 0.92103E-01 | 0.14337E-01 |
| 8 | -0.10019E+00 | 0.80208E-01 | 0.97881E+00 | 0.79262E-02 | - | - | 0.10571E+00 | 0.18795E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10032E+01 | 0.77154E-02 | - | - | 0.10508E+00 | 0.14980E-01 |
| 10 | -0.10019E+00 | 0.16026E+00 | 0.10211E+01 | 0.92899E-02 | - | - | 0.96120E-01 | 0.14488E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10287E+01 | 0.81535E-02 | - | - | 0.83773E-01 | 0.15869E-01 |
| 12 | -0.99465E-01 | 0.20010E+00 | 0.10313E+01 | 0.64500E-02 | - | - | 0.94318E-01 | 0.14295E-01 |
| 13 | 0.20185E-01 | 0.20010E+00 | 0.10718E+01 | 0.74264E-02 | - | - | 0.10196E+00 | 0.97068E-02 |
| 14 | 0.14006E+00 | 0.20010E+00 | 0.11274E+01 | 0.95173E-02 | - | - | 0.71651E-01 | 0.21683E-01 |
| 15 | 0.26022E+00 | 0.20010E+00 | 0.11282E+01 | 0.94041E-02 | - | - | 0.11605E-01 | 0.16662E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.11070E+01 | 0.81239E-02 | - | - | -0.22897E-01 | 0.14335E-01 |
| 17 | 0.50025E+00 | 0.20010E+00 | 0.10851E+01 | 0.81764E-02 | - | - | -0.42848E-01 | 0.10662E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10668E+01 | 0.83392E-02 | - | - | -0.46923E-01 | 0.16183E-01 |
| 19 | 0.74016E+00 | 0.20010E+00 | 0.10480E+01 | 0.67110E-02 | - | - | -0.47555E-01 | 0.10152E-01 |
| 20 | 0.86029E+00 | 0.20010E+00 | 0.10373E+01 | 0.98011E-02 | - | - | -0.33982E-01 | 0.11057E-01 |
| 21 | 0.98031E+00 | 0.20010E+00 | 0.10285E+01 | 0.87851E-02 | - | - | -0.31548E-01 | 0.11034E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10196E+01 | 0.80365E-02 | - | - | -0.28804E-01 | 0.13078E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10232E+01 | 0.91262E-02 | - | - | -0.23282E-01 | 0.12104E-01 |
| 24 | 0.11001E+01 | 0.15977E+00 | 0.10199E+01 | 0.81306E-02 | - | - | -0.30634E-01 | 0.11009E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10134E+01 | 0.86814E-02 | - | - | -0.35093E-01 | 0.12396E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10126E+01 | 0.84193E-02 | - | - | -0.59802E-01 | 0.15624E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.10089E+01 | 0.10291E-01 | - | - | -0.10388E+00 | 0.20716E-01 |
| 28 | 0.11001E+01 | -0.[illegible]E-04 | 0.10127E+01 | 0.13406E-01 | - | - | -0.21556E+00 | 0.38838E-01 |
| 29 | 0.11001E+01 | -0.[illegible]E-01 | 0.10119E+01 | 0.80607E-01 | - | - | -0.32817E+00 | 0.77016E-01 |
| 30 | 0.11001E+01 | -0.[illegible]E-01 | 0.10102E+01 | 0.19041E-01 | - | - | -0.21142E+00 | 0.24090E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10072E+01 | 0.10682E-01 | - | - | -0.31195E-01 | 0.21209E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10065E+01 | 0.73959E-02 | - | - | -0.24416E-02 | 0.10907E-01 |
| 33 | 0.11001E+01 | -0.20027E+00 | 0.10080E+01 | 0.81178E-02 | - | - | 0.18176E-01 | 0.12119E-01 |
| 34 | 0.10995E+01 | -0.20027E+00 | 0.10066E+01 | 0.82386E-02 | - | - | 0.15091E-01 | 0.13371E-01 |
| 35 | 0.97970E+00 | -0.20027E+00 | 0.10071E+01 | 0.78582E-02 | - | - | -0.33816E-01 | 0.80684E-01 |
| 36 | 0.85968E+00 | -0.20027E+00 | 0.10139E+01 | 0.69789E-02 | - | - | -0.71733E-01 | 0.52676E-01 |
| 37 | 0.73991E+00 | -0.20027E+00 | 0.10250E+01 | 0.76115E-02 | - | - | -0.10730E+00 | 0.46860E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20027E+00 | 0.10304E+01 | 0.67067E-02 | - | - | -0.58202E-01 | 0.58462E-01 |
| 39 | 0.49964E+00 | -0.20027E+00 | 0.10375E+01 | 0.81788E-02 | - | - | -0.10059E+00 | 0.49705E-01 |
| 40 | 0.37975E+00 | -0.20027E+00 | 0.10311E+01 | 0.89102E-02 | - | - | -0.14789E+00 | 0.48720E-01 |
| 41 | 0.25961E+00 | -0.20027E+00 | 0.10191E+01 | 0.89105E-02 | - | - | -0.18956E+00 | 0.46916E-01 |
| 42 | 0.13971E+00 | -0.20027E+00 | 0.99963E+00 | 0.88838E-02 | - | - | -0.16913E+00 | 0.57625E-01 |
| 43 | 0.19578E-01 | -0.20027E+00 | 0.97782E+00 | 0.89198E-02 | - | - | -0.80662E-01 | 0.66070E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.97271E+00 | 0.79941E-02 | - | - | 0.58341E-02 | 0.17901E-01 |

I1 = 0.0496 I2 = 2.5739 I3 = 0.0822 I4 = -2.4316

Lift = 0.2741

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 12 at y/c = -1.302

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20015E+00 | 0.95985E+00 | 0.96540E-02 | - | - | 0.11699E-01 | 0.16864E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.94232E+00 | 0.97053E-02 | - | - | 0.87808E-02 | 0.12272E-01 |
| 3 | -0.10044E+00 | -0.66531E-01 | 0.92011E+00 | 0.95047E-02 | - | - | 0.23836E-01 | 0.13073E-01 |
| 4 | -0.10044E+00 | 0.15778E-03 | 0.92169E+00 | 0.18087E-01 | - | - | 0.87197E-01 | 0.17729E-01 |
| 5 | -0.10044E+00 | 0.66846E-01 | 0.96245E+00 | 0.92681E-02 | - | - | 0.12102E+00 | 0.18131E-01 |
| 6 | -0.10044E+00 | 0.13353E+00 | 0.10073E+01 | 0.76064E-02 | - | - | 0.11444E+00 | 0.16304E-01 |
| 7 | -0.10044E+00 | 0.20022E+00 | 0.10372E+01 | 0.78010E-02 | - | - | 0.10534E+00 | 0.15389E-01 |
| 8 | -0.99708E-01 | 0.20022E+00 | 0.10327E+01 | 0.71871E-02 | - | - | 0.87275E-01 | 0.12821E-01 |
| 9 | -0.14070E-01 | 0.20022E+00 | 0.10674E+01 | 0.92050E-02 | - | - | 0.10695E+00 | 0.12965E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.11135E+01 | 0.10775E-01 | - | - | 0.10141E+00 | 0.13404E-01 |
| 11 | 0.15745E+00 | 0.20022E+00 | 0.11514E+01 | 0.70693E-02 | - | - | 0.57304E-01 | 0.18332E-01 |
| 12 | 0.24321E+00 | 0.20022E+00 | 0.11554E+01 | 0.96384E-02 | - | - | 0.70710E-02 | 0.17215E-01 |
| 13 | 0.32897E+00 | 0.20022E+00 | 0.11414E+01 | 0.77917E-02 | - | - | -0.36717E-01 | 0.11623E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11192E+01 | 0.67107E-02 | - | - | -0.53689E-01 | 0.13120E-01 |
| 15 | 0.50013E+00 | 0.20022E+00 | 0.10991E+01 | 0.63067E-02 | - | - | -0.77502E-01 | 0.10498E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.10839E+01 | 0.70056E-02 | - | - | -0.78420E-01 | 0.16901E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.10655E+01 | 0.85908E-02 | - | - | -0.80267E-01 | 0.91593E-02 |
| 18 | 0.75728E+00 | 0.20022E+00 | 0.10534E+01 | 0.10660E-01 | - | - | -0.83313E-01 | 0.12104E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10415E+01 | 0.92222E-02 | - | - | -0.80656E-01 | 0.10756E-01 |
| 20 | 0.92892E+00 | 0.20022E+00 | 0.10341E+01 | 0.77286E-02 | - | - | -0.74690E-01 | 0.93270E-02 |
| 21 | 0.10147E+01 | 0.20022E+00 | 0.10273E+01 | 0.98722E-02 | - | - | -0.63250E-01 | 0.12496E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10226E+01 | 0.85839E-02 | - | - | -0.55329E-01 | 0.12494E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10224E+01 | 0.85712E-02 | - | - | -0.57438E-01 | 0.12474E-01 |
| 24 | 0.11002E+01 | 0.13305E+00 | 0.10147E+01 | 0.75002E-02 | - | - | -0.79217E-01 | 0.11570E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10095E+01 | 0.90848E-02 | - | - | -0.11456E+00 | 0.77911E-02 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10019E+01 | 0.94101E-02 | - | - | -0.15539E+00 | 0.11693E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98663E+00 | 0.19965E-01 | - | - | -0.13742E+00 | 0.23247E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.98978E+00 | 0.79965E-02 | - | - | -0.65412E-01 | 0.10098E-01 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.99866E+00 | 0.10667E-01 | - | - | -0.31764E-01 | 0.91379E-02 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.99824E+00 | 0.71435E-02 | - | - | -0.33881E-01 | 0.91697E-02 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.99609E+00 | 0.73422E-02 | - | - | -0.15757E-01 | 0.93324E-02 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.10013E+01 | 0.74700E-02 | - | - | -0.22795E-01 | 0.33051E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.10087E+01 | 0.67610E-02 | - | - | -0.41492E-01 | 0.41935E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10145E+01 | 0.89392E-02 | - | - | -0.87460E-01 | 0.47936E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10209E+01 | 0.62983E-02 | - | - | -0.10781E+00 | 0.46980E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10285E+01 | 0.79413E-02 | - | - | -0.13829E+00 | 0.54464E-01 |
| 37 | 0.49988E+00 | -0.20027E+00 | 0.10339E+01 | 0.71966E-02 | - | - | -0.18437E+00 | 0.48428E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20027E+00 | 0.10334E+01 | 0.70824E-02 | - | - | -0.22824E+00 | 0.50955E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10247E+01 | 0.80507E-02 | - | - | -0.24747E+00 | 0.42410E-01 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.10091E+01 | 0.12678E-01 | - | - | -0.24805E+00 | 0.48884E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.98928E+00 | 0.85049E-02 | - | - | -0.21476E+00 | 0.66074E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.96750E+00 | 0.11905E-01 | - | - | -0.23181E+00 | 0.44048E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.95677E+00 | 0.10820E-01 | - | - | -0.62397E-01 | 0.61454E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.96388E+00 | 0.11244E-01 | - | - | 0.24885E-02 | 0.15856E-01 |

I1 = 0.0555 I2 = 2.6028 I3 = 0.0797 I4 = -2.4110

Lift = 0.3270

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 11 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20015E+00 | 0.93845E+00 | 0.10344E-01 | - | - | 0.13924E-02 | 0.16658E-01 |
| 2 | -0.10032E+00 | -0.13310E+00 | 0.91840E+00 | 0.11162E-01 | - | - | 0.17532E-01 | 0.15188E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.89923E+00 | 0.11811E-01 | - | - | 0.57806E-01 | 0.17852E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.92399E+00 | 0.31939E-01 | - | - | 0.11596E+00 | 0.22516E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.96835E+00 | 0.96521E-02 | - | - | 0.15562E+00 | 0.20154E-01 |
| 6 | -0.10032E+00 | 0.13353E+00 | 0.10172E+01 | 0.82908E-02 | - | - | 0.13304E+00 | 0.15100E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10485E+01 | 0.81883E-02 | - | - | 0.11819E+00 | 0.14554E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10480E+01 | 0.91290E-02 | - | - | 0.10917E+00 | 0.13513E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.10918E+01 | 0.74127E-02 | - | - | 0.13254E+00 | 0.12151E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11598E+01 | 0.11343E-01 | - | - | 0.11575E+00 | 0.17573E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.12038E+01 | 0.93619E-02 | - | - | 0.53927E-01 | 0.16873E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12028E+01 | 0.13807E-01 | - | - | -0.66455E-02 | 0.17254E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.11791E+01 | 0.81318E-02 | - | - | -0.58065E-01 | 0.13559E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11506E+01 | 0.89997E-02 | - | - | -0.88061E-01 | 0.12599E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11250E+01 | 0.72488E-02 | - | - | -0.10759E+00 | 0.97327E-02 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.10991E+01 | 0.68504E-02 | - | - | -0.11428E+00 | 0.10593E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10798E+01 | 0.79827E-02 | - | - | -0.12313E+00 | 0.14883E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10617E+01 | 0.10111E-01 | - | - | -0.11732E+00 | 0.13995E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10460E+01 | 0.10897E-01 | - | - | -0.11373E+00 | 0.13154E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10346E+01 | 0.93836E-02 | - | - | -0.10666E+00 | 0.12486E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10275E+01 | 0.64912E-02 | - | - | -0.10043E+00 | 0.11738E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10233E+01 | 0.74674E-02 | - | - | -0.88177E-01 | 0.12018E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10231E+01 | 0.90592E-02 | - | - | -0.87043E-01 | 0.13423E-01 |
| 24 | 0.11001E+01 | 0.13305E+00 | 0.10149E+01 | 0.76087E-02 | - | - | -0.99069E-01 | 0.11224E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10034E+01 | 0.78516E-02 | - | - | -0.10481E+00 | 0.12208E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.99295E+00 | 0.10135E-01 | - | - | -0.11049E+00 | 0.12480E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.97664E+00 | 0.95203E-02 | - | - | -0.10737E+00 | 0.12523E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.97625E+00 | 0.85141E-02 | - | - | -0.75526E-01 | 0.10956E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.98838E+00 | 0.70442E-02 | - | - | -0.61403E-01 | 0.80721E-02 |
| 30 | 0.10995E+01 | -0.20027E+00 | 0.98756E+00 | 0.75150E-02 | - | - | -0.57905E-01 | 0.10018E-01 |
| 31 | 0.10140E+01 | -0.20027E+00 | 0.98547E+00 | 0.80542E-02 | - | - | -0.41187E-01 | 0.98958E-02 |
| 32 | 0.92820E+00 | -0.20027E+00 | 0.98998E+00 | 0.78263E-02 | - | - | -0.70364E-01 | 0.43321E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.99845E+00 | 0.78754E-02 | - | - | -0.11003E+00 | 0.50118E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10066E+01 | 0.88747E-02 | - | - | -0.14575E+00 | 0.50031E-01 |
| 35 | 0.67116E+00 | -0.20027E+00 | 0.10172E+01 | 0.78661E-02 | - | - | -0.21038E+00 | 0.51941E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10200E+01 | 0.78810E-02 | - | - | -0.24400E+00 | 0.49829E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10276E+01 | 0.77962E-02 | - | - | -0.27429E+00 | 0.43056E-01 |



ORIGINAL PAGE IS
OF POOR QUALITY

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61400E+00 | -0.20027E+00 | 0.10202E+01 | 0.69794E-02 | - | - | -0.25621E+00 | 0.57817E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.10135E+01 | 0.96403E-02 | - | - | -0.20835E+00 | 0.74691E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.99901E+00 | 0.11437E-01 | - | - | -0.21955E+00 | 0.50490E-01 |
| 41 | 0.15684E+00 | -0.20027E+00 | 0.96940E+00 | 0.97510E-02 | - | - | -0.19655E+00 | 0.58942E-01 |
| 42 | 0.71083E-01 | -0.20027E+00 | 0.94367E+00 | 0.13037E-01 | - | - | -0.11108E+00 | 0.53225E-01 |
| 43 | -0.14677E-01 | -0.20027E+00 | 0.93322E+00 | 0.11045E-01 | - | - | -0.34300E-01 | 0.14878E-01 |
| 44 | -0.10032E+00 | -0.20027E+00 | 0.93929E+00 | 0.99120E-02 | - | - | 0.29527E-02 | 0.13491E-01 |

I1 = 0.0717 I2 = 2.6572 I3 = 0.0761 I4 = -2.3809

Lift = 0.4241

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 10 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20015E+00 | 0.92948E+00 | 0.12937E-01 | - | - | 0.95585E-02 | 0.16957E-01 |
| 2 | -0.10007E+00 | -0.13322E+00 | 0.91162E+00 | 0.14903E-01 | - | - | 0.28447E-01 | 0.21142E-01 |
| 3 | -0.10007E+00 | -0.66531E-01 | 0.89524E+00 | 0.16953E-01 | - | - | 0.74843E-01 | 0.21658E-01 |
| 4 | -0.10007E+00 | 0.15778E-03 | 0.91406E+00 | 0.13186E-01 | - | - | 0.14228E+00 | 0.24882E-01 |
| 5 | -0.10007E+00 | 0.66846E-01 | 0.98084E+00 | 0.11546E-01 | - | - | 0.17971E+00 | 0.23246E-01 |
| 6 | -0.10007E+00 | 0.13353E+00 | 0.10320E+01 | 0.11999E-01 | - | - | 0.15129E+00 | 0.17372E-01 |
| 7 | -0.10007E+00 | 0.20010E+00 | 0.10642E+01 | 0.95803E-02 | - | - | 0.12948E+00 | 0.19822E-01 |
| 8 | -0.99344E-01 | 0.20010E+00 | 0.10682E+01 | 0.99796E-02 | - | - | 0.14377E+00 | 0.19816E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11177E+01 | 0.12219E-01 | - | - | 0.15052E+00 | 0.15156E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11879E+01 | 0.13977E-01 | - | - | 0.12828E+00 | 0.15676E-01 |
| 11 | 0.15745E+00 | 0.20010E+00 | 0.12334E+01 | 0.11518E-01 | - | - | 0.63568E-01 | 0.22257E-01 |
| 12 | 0.24321E+00 | 0.20010E+00 | 0.12297E+01 | 0.88953E-02 | - | - | -0.90350E-02 | 0.19154E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12049E+01 | 0.10185E-01 | - | - | -0.61776E-01 | 0.16076E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11808E+01 | 0.10865E-01 | - | - | -0.91778E-01 | 0.11958E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11472E+01 | 0.99815E-02 | - | - | -0.11563E+00 | 0.12890E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11229E+01 | 0.99754E-02 | - | - | -0.12086E+00 | 0.14839E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10991E+01 | 0.95294E-02 | - | - | -0.12758E+00 | 0.13039E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10732E+01 | 0.78488E-02 | - | - | -0.13296E+00 | 0.13714E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10600E+01 | 0.95486E-02 | - | - | -0.12557E+00 | 0.14146E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10429E+01 | 0.11541E-01 | - | - | -0.11130E+00 | 0.15107E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10335E+01 | 0.11469E-01 | - | - | -0.10668E+00 | 0.14448E-01 |
| 22 | 0.11003E+01 | 0.20010E+00 | 0.10275E+01 | 0.11038E-01 | - | - | -0.95068E-01 | 0.11893E-01 |
| 23 | 0.11003E+01 | 0.19986E+00 | 0.10265E+01 | 0.11467E-01 | - | - | -0.96741E-01 | 0.12915E-01 |
| 24 | 0.11003E+01 | 0.13305E+00 | 0.10174E+01 | 0.99650E-02 | - | - | -0.10585E+00 | 0.14080E-01 |
| 25 | 0.11003E+01 | 0.66603E-01 | 0.10080E+01 | 0.12434E-01 | - | - | -0.10514E+00 | 0.14977E-01 |
| 26 | 0.11003E+01 | -0.85220E-04 | 0.99420E+00 | 0.12289E-01 | - | - | -0.11068E+00 | 0.11028E-01 |
| 27 | 0.11003E+01 | -0.66774E-01 | 0.97866E+00 | 0.12170E-01 | - | - | -0.10550E+00 | 0.11817E-01 |
| 28 | 0.11003E+01 | -0.13346E+00 | 0.97790E+00 | 0.16121E-01 | - | - | -0.74356E-01 | 0.14728E-01 |
| 29 | 0.11003E+01 | -0.20027E+00 | 0.98373E+00 | 0.95315E-02 | - | - | -0.63516E-01 | 0.10732E-01 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.98552E+00 | 0.12246E-01 | - | - | -0.62833E-01 | 0.88860E-02 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.[illegible]218E+00 | 0.11286E-01 | - | - | -0.51486E-01 | 0.10420E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.[illegible]674E+00 | 0.12412E-01 | - | - | -0.62007E-01 | 0.43666E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.99321E+00 | 0.12306E-01 | - | - | -0.13491E+00 | 0.59676E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10024E+01 | 0.10174E-01 | - | - | -0.15849E+00 | 0.55241E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10120E+01 | 0.11200E-01 | - | - | -0.18383E+00 | 0.54501E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10139E+01 | 0.12288E-01 | - | - | -0.19392E+00 | 0.48732E-01 |
| 37 | 0.49988E+00 | -0.20027E+00 | 0.10157E+01 | 0.79600E-02 | - | - | -0.19473E+00 | 0.52974E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20027E+00 | 0.10125E+01 | 0.11182E-01 | - | - | -0.16762E+00 | 0.55692E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10036E+01 | 0.14803E-01 | - | - | -0.12854E+00 | 0.52349E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.98119E+00 | 0.13024E-01 | - | - | -0.11170E+00 | 0.37519E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.95237E+00 | 0.16774E-01 | - | - | -0.10949E+00 | 0.44828E-01 |
| 42 | 0.71204E-01 | -0.20027E+00 | 0.92744E+00 | 0.17648E-01 | - | - | -0.54469E-01 | 0.17638E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.91623E+00 | 0.15774E-01 | - | - | -0.15395E-01 | 0.17211E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.92458E+00 | 0.11146E-01 | - | - | 0.25411E-01 | 0.15037E-01 |

I1 = 0.0861 I2 = 2.7059 I3 = 0.0776 I4 = -2.3577

Lift = 0.5118

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 9 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99830E-01 | -0.19991E+00 | 0.93048E+00 | 0.13737E-01 | - | - | 0.16549E-01 | 0.19329E-01 |
| 2 | -0.99830E-01 | -0.13322E+00 | 0.91297E+00 | 0.17501E-01 | - | - | 0.51843E-01 | 0.16060E-01 |
| 3 | -0.99830E-01 | -0.66410E-01 | 0.89880E+00 | 0.16278E-01 | - | - | 0.92884E-01 | 0.22182E-01 |
| 4 | -0.99830E-01 | 0.27892E-03 | 0.92432E+00 | 0.16157E-01 | - | - | 0.15124E+00 | 0.22501E-01 |
| 5 | -0.99830E-01 | 0.66968E-01 | 0.99106E+00 | 0.13215E-01 | - | - | 0.18738E+00 | 0.19541E-01 |
| 6 | -0.99830E-01 | 0.13353E+00 | 0.10433E+01 | 0.13364E-01 | - | - | 0.15797E+00 | 0.21752E-01 |
| 7 | -0.99830E-01 | 0.20010E+00 | 0.10718E+01 | 0.11137E-01 | - | - | 0.13092E+00 | 0.17772E-01 |
| 8 | -0.10032E+00 | 0.20010E+00 | 0.10743E+01 | 0.11314E-01 | - | - | 0.14822E+00 | 0.20746E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11175E+01 | 0.94424E-02 | - | - | 0.14477E+00 | 0.13753E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11946E+01 | 0.13402E-01 | - | - | 0.13951E+00 | 0.17862E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.12266E+01 | 0.10936E-01 | - | - | 0.72090E-01 | 0.19615E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12411E+01 | 0.91609E-02 | - | - | 0.10136E-01 | 0.15839E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12202E+01 | 0.11342E-01 | - | - | -0.42233E-01 | 0.17709E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11897E+01 | 0.12187E-01 | - | - | -0.81335E-01 | 0.14574E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11608E+01 | 0.10952E-01 | - | - | -0.10335E+00 | 0.14293E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11322E+01 | 0.11794E-01 | - | - | -0.11897E+00 | 0.15416E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11107E+01 | 0.11437E-01 | - | - | -0.11954E+00 | 0.13101E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10869E+01 | 0.12286E-01 | - | - | -0.12264E+00 | 0.13421E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10671E+01 | 0.13373E-01 | - | - | -0.11756E+00 | 0.13939E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10516E+01 | 0.12785E-01 | - | - | -0.11166E+00 | 0.15072E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10397E+01 | 0.11327E-01 | - | - | -0.95399E-01 | 0.16129E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10324E+01 | 0.11532E-01 | - | - | -0.93373E-01 | 0.15098E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10315E+01 | 0.10642E-01 | - | - | -0.94573E-01 | 0.14262E-01 |
| 24 | 0.11001E+01 | 0.13305E+00 | 0.10251E+01 | 0.14793E-01 | - | - | -0.97893E-01 | 0.15422E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10149E+01 | 0.15046E-01 | - | - | -0.10869E+00 | 0.13797E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.99933E+00 | 0.20732E-01 | - | - | -0.13119E+00 | 0.17330E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.98299E+00 | 0.15574E-01 | - | - | -0.10855E+00 | 0.14788E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.97951E+00 | 0.15827E-01 | - | - | -0.65931E-01 | 0.15824E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.98520E+00 | 0.10071E-01 | - | - | -0.53773E-01 | 0.74217E-02 |
| 30 | 0.10995E+01 | -0.20027E+00 | 0.98807E+00 | 0.10288E-01 | - | - | -0.54040E-01 | 0.14437E-01 |
| 31 | 0.10140E+01 | -0.20027E+00 | 0.98403E+00 | 0.13160E-01 | - | - | -0.44369E-01 | 0.14280E-01 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.98583E+00 | 0.12391E-01 | - | - | -0.35159E-01 | 0.20553E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.99048E+00 | 0.11208E-01 | - | - | -0.28295E-01 | 0.19020E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10005E+01 | 0.13022E-01 | - | - | -0.27406E-01 | 0.21319E-01 |
| 35 | 0.67116E+00 | -0.20027E+00 | 0.10079E+01 | 0.13850E-01 | - | - | -0.27205E-01 | 0.19310E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10121E+01 | 0.11571E-01 | - | - | -0.28924E-01 | 0.21166E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10145E+01 | 0.10881E-01 | - | - | -0.45784E-01 | 0.21879E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10063E+01 | 0.14340E-01 | - | - | -0.59056E-01 | 0.31356E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.99647E+00 | 0.13922E-01 | - | - | -0.90525E-01 | 0.48316E-01 |
| 40 | 0.24248E+00 | -0.20027E+00 | 0.97910E+00 | 0.16367E-01 | - | - | -0.77989E-01 | 0.18222E-01 |
| 41 | 0.15672E+00 | -0.20027E+00 | 0.95020E+00 | 0.18448E-01 | - | - | -0.67922E-01 | 0.15131E-01 |
| 42 | 0.71083E-01 | -0.20027E+00 | 0.93092E+00 | 0.18875E-01 | - | - | -0.49382E-01 | 0.16848E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.91441E+00 | 0.17992E-01 | - | - | -0.82486E-02 | 0.19084E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.92858E+00 | 0.15684E-01 | - | - | 0.24553E-01 | 0.18380E-01 |

I1 = 0.0957 I2 = 2.7239 I3 = 0.0784 I4 = -2.3530

Lift = 0.5449

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 8 at y/c = -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.92920E+00 | 0.10108E-01 | - | - | 0.37791E-01 | 0.37734E-01 |
| 2 | -0.10044E+00 | -0.15982E+00 | 0.91817E+00 | 0.11431E-01 | - | - | 0.63756E-01 | 0.42423E-01 |
| 3 | -0.10044E+00 | -0.11986E+00 | 0.90880E+00 | 0.12093E-01 | - | - | 0.63559E-01 | 0.33152E-01 |
| 4 | -0.10044E+00 | -0.79893E-01 | 0.90065E+00 | 0.11475E-01 | - | - | 0.81394E-01 | 0.26477E-01 |
| 5 | -0.10044E+00 | -0.39928E-01 | 0.90897E+00 | 0.10388E-01 | - | - | 0.11511E+00 | 0.23929E-01 |
| 6 | -0.10044E+00 | 0.15778E-03 | 0.93121E+00 | 0.92696E-02 | - | - | 0.14782E+00 | 0.24660E-01 |
| 7 | -0.10044E+00 | 0.40123E-01 | 0.97589E+00 | 0.29923E-01 | - | - | 0.16563E+00 | 0.24910E-01 |
| 8 | -0.10044E+00 | 0.80087E-01 | 0.10171E+01 | 0.27957E-01 | - | - | 0.16993E+00 | 0.25161E-01 |
| 9 | -0.10044E+00 | 0.12017E+00 | 0.10449E+01 | 0.24108E-01 | - | - | 0.15893E+00 | 0.24620E-01 |
| 10 | -0.10044E+00 | 0.16014E+00 | 0.10696E+01 | 0.26244E-01 | - | - | 0.14368E+00 | 0.21782E-01 |
| 11 | -0.10044E+00 | 0.20010E+00 | 0.10751E+01 | 0.19507E-01 | - | - | 0.12886E+00 | 0.20088E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10786E+01 | 0.20857E-01 | - | - | 0.12867E+00 | 0.20501E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.11193E+01 | 0.21029E-01 | - | - | 0.14731E+00 | 0.24837E-01 |
| 14 | 0.71933E-01 | 0.20010E+00 | 0.11766E+01 | 0.20086E-01 | - | - | 0.13203E+00 | 0.22715E-01 |
| 15 | 0.15745E+00 | 0.20010E+00 | 0.12205E+01 | 0.19371E-01 | - | - | 0.76745E-01 | 0.19401E-01 |
| 16 | 0.24321E+00 | 0.20010E+00 | 0.12283E+01 | 0.16470E-01 | - | - | 0.19658E-01 | 0.22537E-01 |
| 17 | 0.32897E+00 | 0.20010E+00 | 0.12149E+01 | 0.16175E-01 | - | - | -0.29384E-01 | 0.29272E-01 |
| 18 | 0.41461E+00 | 0.20010E+00 | 0.11860E+01 | 0.15156E-01 | - | - | -0.69116E-01 | 0.19694E-01 |
| 19 | 0.50037E+00 | 0.20010E+00 | 0.11632E+01 | 0.20531E-01 | - | - | -0.91338E-01 | 0.19829E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.11399E+01 | 0.27466E-01 | - | - | -0.10374E+00 | 0.20191E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.11210E+01 | 0.29464E-01 | - | - | -0.11003E+00 | 0.19453E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.11088E+01 | 0.33993E-01 | - | - | -0.11344E+00 | 0.21805E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10889E+01 | 0.35006E-01 | - | - | -0.10458E+00 | 0.23746E-01 |
| 24 | 0.92892E+00 | 0.20010E+00 | 0.10560E+01 | 0.19566E-01 | - | - | -0.92818E-01 | 0.31515E-01 |
| 25 | 0.10147E+01 | 0.20010E+00 | 0.10452E+01 | 0.15240E-01 | - | - | -0.91514E-01 | 0.21927E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10373E+01 | 0.19037E-01 | - | - | -0.82487E-01 | 0.23192E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10384E+01 | 0.19863E-01 | - | - | -0.79425E-01 | 0.20239E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10306E+01 | 0.14709E-01 | - | - | -0.82155E-01 | 0.19940E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10218E+01 | 0.78116E-02 | - | - | -0.86037E-01 | 0.19079E-01 |
| 30 | 0.11002E+01 | 0.79844E-01 | 0.10152E+01 | 0.14793E-01 | - | - | -0.92452E-01 | 0.22175E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.10031E+01 | 0.29410E-01 | - | - | -0.11832E+00 | 0.33019E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.98610E+00 | 0.33649E-01 | - | - | -0.14027E+00 | 0.35781E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.98432E+00 | 0.22155E-01 | - | - | -0.12122E+00 | 0.29558E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.98178E+00 | 0.13769E-01 | - | - | -0.88326E-01 | 0.19211E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.96770E+00 | 0.32787E-01 | - | - | -0.47512E-01 | 0.37365E-01 |
| 36 | 0.11002E+01 | -0.16019E+00 | 0.98186E+00 | 0.61295E-02 | - | - | -0.45288E-01 | 0.18512E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.98651E+00 | 0.66945E-02 | - | - | -0.37728E-01 | 0.30546E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10994E+01 | -0.20015E+00 | 0.98725E+00 | 0.62316E-02 | - | - | -0.41290E-01 | 0.23478E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.98084E+00 | 0.82369E-02 | - | - | -0.22477E-01 | 0.36518E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.98529E+00 | 0.91701E-02 | - | - | -0.36263E-01 | 0.56913E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.98976E+00 | 0.98704E-02 | - | - | -0.47233E-01 | 0.53163E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10001E+01 | 0.98711E-02 | - | - | -0.58622E-01 | 0.47091E-01 |
| 43 | 0.67092E+00 | -0.20015E+00 | 0.10080E+01 | 0.13086E-01 | - | - | -0.72964E-01 | 0.53787E-01 |
| 44 | 0.58540E+00 | -0.20015E+00 | 0.10131E+01 | 0.97117E-02 | - | - | -0.97112E-01 | 0.51674E-01 |
| 45 | 0.49964E+00 | -0.20015E+00 | 0.10205E+01 | 0.12367E-01 | - | - | -0.12363E+00 | 0.56065E-01 |
| 46 | 0.41400E+00 | -0.20015E+00 | 0.10108E+01 | 0.73837E-02 | - | - | -0.13945E+00 | 0.53269E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.99285E+00 | 0.12123E-01 | - | - | -0.16024E+00 | 0.55130E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.97592E+00 | 0.13561E-01 | - | - | -0.15735E+00 | 0.54997E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.95290E+00 | 0.18593E-01 | - | - | -0.13636E+00 | 0.53550E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.92064E+00 | 0.17181E-01 | - | - | -0.15942E+00 | 0.52418E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.91870E+00 | 0.13863E-01 | - | - | -0.17571E+00 | 0.58687E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.92884E+00 | 0.13756E-01 | - | - | -0.19331E+00 | 0.52626E-01 |

I1 = 0.0960 I2 = 2.7314 I3 = 0.0709 I4 = -2.3533

Lift = 0.5449

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 7 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.93169E+00 | 0.97249E-02 | - | - | 0.22749E-01 | 0.20162E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.91839E+00 | 0.10657E-01 | - | - | 0.46863E-01 | 0.22806E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.90950E+00 | 0.10621E-01 | - | - | 0.59426E-01 | 0.23431E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.90437E+00 | 0.95288E-02 | - | - | 0.79846E-01 | 0.24986E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.90935E+00 | 0.10269E-01 | - | - | 0.11353E+00 | 0.27520E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.93264E+00 | 0.80916E-02 | - | - | 0.15422E+00 | 0.21201E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.97088E+00 | 0.73114E-02 | - | - | 0.17020E+00 | 0.23278E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10074E+01 | 0.89334E-02 | - | - | 0.16880E+00 | 0.22838E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10376E+01 | 0.94085E-02 | - | - | 0.16328E+00 | 0.21943E-01 |
| 10 | -0.10019E+00 | 0.16026E+00 | 0.10577E+01 | 0.89406E-02 | - | - | 0.13961E+00 | 0.19439E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10699E+01 | 0.98151E-02 | - | - | 0.13377E+00 | 0.19452E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10751E+01 | 0.13515E-01 | - | - | 0.13118E+00 | 0.16400E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.11132E+01 | 0.10944E-01 | - | - | 0.13601E+00 | 0.15093E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.11756E+01 | 0.15447E-01 | - | - | 0.12770E+00 | 0.15787E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.12222E+01 | 0.10172E-01 | - | - | 0.77564E-01 | 0.20369E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.12276E+01 | 0.10511E-01 | - | - | 0.17782E-01 | 0.18384E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.12140E+01 | 0.95051E-02 | - | - | -0.31979E-01 | 0.20526E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.11903E+01 | 0.10916E-01 | - | - | -0.69538E-01 | 0.12811E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.11644E+01 | 0.12676E-01 | - | - | -0.87138E-01 | 0.17151E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.11379E+01 | 0.19937E-01 | - | - | -0.10271E+00 | 0.14447E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.11086E+01 | 0.12154E-01 | - | - | -0.11042E+00 | 0.14069E-01 |
| 22 | 0.75753E+00 | 0.20010E+00 | 0.10869E+01 | 0.75280E-02 | - | - | -0.11035E+00 | 0.15038E-01 |
| 23 | 0.84316E+00 | 0.20010E+00 | 0.10670E+01 | 0.91372E-02 | - | - | -0.10557E+00 | 0.14390E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10525E+01 | 0.76852E-02 | - | - | -0.98737E-01 | 0.14997E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10402E+01 | 0.10779E-01 | - | - | -0.94513E-01 | 0.13164E-01 |
| 26 | 0.11003E+01 | 0.20010E+00 | 0.10330E+01 | 0.10547E-01 | - | - | -0.84068E-01 | 0.11891E-01 |
| 27 | 0.11003E+01 | 0.19998E+00 | 0.10353E+01 | 0.10266E-01 | - | - | -0.81973E-01 | 0.12986E-01 |
| 28 | 0.11003E+01 | 0.15989E+00 | 0.10268E+01 | 0.81716E-02 | - | - | -0.82084E-01 | 0.16822E-01 |
| 29 | 0.11003E+01 | 0.11993E+00 | 0.10254E+01 | 0.13354E-01 | - | - | -0.74136E-01 | 0.17148E-01 |
| 30 | 0.11003E+01 | 0.79844E-01 | 0.10060E+01 | 0.39673E-01 | - | - | -0.64980E-01 | 0.48094E-01 |
| 31 | 0.11003E+01 | 0.39880E-01 | 0.87078E+00 | 0.74358E-01 | - | - | -0.31147E-01 | 0.78279E-01 |
| 32 | 0.11003E+01 | -0.85220E-04 | 0.82238E+00 | 0.61583E-01 | - | - | 0.19208E-01 | 0.87319E-01 |
| 33 | 0.11003E+01 | -0.40171E-01 | 0.89818E+00 | 0.53758E-01 | - | - | 0.59894E-02 | 0.69163E-01 |
| 34 | 0.11003E+01 | -0.80136E-01 | 0.95472E+00 | 0.32115E-01 | - | - | -0.18411E-01 | 0.51560E-01 |
| 35 | 0.11003E+01 | -0.12010E+00 | 0.98207E+00 | 0.17353E-01 | - | - | -0.37880E-01 | 0.17966E-01 |
| 36 | 0.11003E+01 | -0.16007E+00 | 0.98457E+00 | 0.99786E-02 | - | - | -0.45889E-01 | 0.17122E-01 |
| 37 | 0.11003E+01 | -0.20027E+00 | 0.98662E+00 | 0.81102E-02 | - | - | -0.42484E-01 | 0.17269E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20027E+00 | 0.98820E+00 | 0.89970E-02 | - | - | -0.49577E-01 | 0.10471E-01 |
| 39 | 0.10141E+01 | -0.20027E+00 | 0.98179E+00 | 0.90454E-02 | - | - | -0.41582E-01 | 0.12644E-01 |
| 40 | 0.92832E+00 | -0.20027E+00 | 0.98071E+00 | 0.86566E-02 | - | - | -0.12361E-01 | 0.35253E-01 |
| 41 | 0.84231E+00 | -0.20027E+00 | 0.98909E+00 | 0.80781E-02 | - | - | 0.28091E-02 | 0.40613E-01 |
| 42 | 0.75680E+00 | -0.20027E+00 | 0.99734E+00 | 0.82266E-02 | - | - | 0.14223E-01 | 0.41359E-01 |
| 43 | 0.67116E+00 | -0.20027E+00 | 0.10106E+01 | 0.69269E-02 | - | - | 0.15300E-01 | 0.47817E-01 |
| 44 | 0.58552E+00 | -0.20027E+00 | 0.10125E+01 | 0.63097E-02 | - | - | 0.25264E-01 | 0.57807E-01 |
| 45 | 0.49976E+00 | -0.20027E+00 | 0.10156E+01 | 0.76700E-02 | - | - | 0.35434E-01 | 0.54486E-01 |
| 46 | 0.41400E+00 | -0.20027E+00 | 0.10122E+01 | 0.78382E-02 | - | - | 0.36142E-01 | 0.50593E-01 |
| 47 | 0.32836E+00 | -0.20027E+00 | 0.99686E+00 | 0.13878E-01 | - | - | 0.46286E-01 | 0.50808E-01 |
| 48 | 0.24260E+00 | -0.20027E+00 | 0.98071E+00 | 0.10301E-01 | - | - | -0.41524E-01 | 0.45667E-01 |
| 49 | 0.15696E+00 | -0.20027E+00 | 0.94985E+00 | 0.10819E-01 | - | - | -0.56631E-01 | 0.19913E-01 |
| 50 | 0.71204E-01 | -0.20027E+00 | 0.93282E+00 | 0.10582E-01 | - | - | -0.43938E-01 | 0.26363E-01 |
| 51 | -0.14799E-01 | -0.20027E+00 | 0.91615E+00 | 0.11723E-01 | - | - | -0.14287E-01 | 0.24926E-01 |
| 52 | -0.10044E+00 | -0.20027E+00 | 0.92942E+00 | 0.77847E-02 | - | - | 0.16329E-01 | 0.39469E-01 |

I1 = 0.0940 I2 = 2.7181 I3 = 0.0311 I4 = -2.3537

Lift = 0.4896

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 6 at y/c = 0.054

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.92977E+00 | 0.85554E-02 | - | - | 0.27272E-01 | 0.20958E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.92196E+00 | 0.10216E-01 | - | - | 0.40714E-01 | 0.22166E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.91341E+00 | 0.11450E-01 | - | - | 0.48562E-01 | 0.21941E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.90636E+00 | 0.10928E-01 | - | - | 0.79076E-01 | 0.18319E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91190E+00 | 0.10430E-01 | - | - | 0.11405E+00 | 0.26383E-01 |
| 6 | -0.10032E+00 | 0.27892E-03 | 0.93309E+00 | 0.76384E-02 | - | - | 0.16012E+00 | 0.27724E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.97190E+00 | 0.85839E-02 | - | - | 0.16572E+00 | 0.22665E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.10087E+01 | 0.83651E-02 | - | - | 0.17397E+00 | 0.26480E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10374E+01 | 0.76232E-02 | - | - | 0.15920E+00 | 0.19420E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10584E+01 | 0.91976E-02 | - | - | 0.14821E+00 | 0.25492E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10729E+01 | 0.91565E-02 | - | - | 0.13121E+00 | 0.20085E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10708E+01 | 0.91164E-02 | - | - | 0.12294E+00 | 0.21157E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.11139E+01 | 0.97090E-02 | - | - | 0.13312E+00 | 0.18391E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.11803E+01 | 0.10261E-01 | - | - | 0.13164E+00 | 0.16959E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.12210E+01 | 0.11510E-01 | - | - | 0.74086E-01 | 0.25942E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.12308E+01 | 0.67941E-02 | - | - | 0.24926E-01 | 0.25441E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.12131E+01 | 0.95099E-02 | - | - | -0.30134E-01 | 0.25479E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.11882E+01 | 0.10348E-01 | - | - | -0.68399E-01 | 0.16765E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.11582E+01 | 0.80756E-02 | - | - | -0.90677E-01 | 0.16824E-01 |
| 20 | 0.58613E+00 | 0.20010E+00 | 0.11325E+01 | 0.66386E-02 | - | - | -0.10119E+00 | 0.16974E-01 |
| 21 | 0.67177E+00 | 0.20010E+00 | 0.11087E+01 | 0.78339E-02 | - | - | -0.10798E+00 | 0.18145E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.10877E+01 | 0.94831E-02 | - | - | -0.10771E+00 | 0.18365E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10678E+01 | 0.82345E-02 | - | - | -0.10438E+00 | 0.16326E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10532E+01 | 0.99224E-02 | - | - | -0.94486E-01 | 0.19407E-01 |
| 25 | 0.10147E+01 | 0.20010E+00 | 0.10410E+01 | 0.57888E-02 | - | - | -0.88343E-01 | 0.12538E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10339E+01 | 0.70239E-02 | - | - | -0.84571E-01 | 0.13362E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10324E+01 | 0.63324E-02 | - | - | -0.79583E-01 | 0.16239E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10289E+01 | 0.11094E-01 | - | - | -0.76925E-01 | 0.14496E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10242E+01 | 0.14853E-01 | - | - | -0.72531E-01 | 0.23860E-01 |
| 30 | 0.11002E+01 | 0.79844E-01 | 0.99706E+00 | 0.44434E-01 | - | - | -0.71373E-01 | 0.47133E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.82189E+00 | 0.69081E-01 | - | - | -0.42857E-01 | 0.75101E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.78691E+00 | 0.58171E-01 | - | - | -0.30370E-01 | 0.81010E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.84800E+00 | 0.57147E-01 | - | - | -0.40769E-01 | 0.67288E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.95533E+00 | 0.36360E-01 | - | - | -0.77379E-01 | 0.34428E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.96797E+00 | 0.26346E-01 | - | - | -0.53572E-01 | 0.27364E-01 |
| 36 | 0.11002E+01 | -0.16007E+00 | 0.98507E+00 | 0.61099E-02 | - | - | -0.55731E-01 | 0.10661E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.98412E+00 | 0.85377E-02 | - | - | -0.50217E-01 | 0.16056E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20015E+00 | 0.98813E+00 | 0.65601E-02 | - | - | -0.51745E-01 | 0.15252E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.98079E+00 | 0.75046E-02 | - | - | -0.41974E-01 | 0.16375E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.97950E+00 | 0.68352E-02 | - | - | -0.28961E-01 | 0.44511E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.98667E+00 | 0.76851E-02 | - | - | -0.12298E-01 | 0.26896E-01 |
| 42 | 0.75680E+00 | -0.20015E+00 | 0.99939E+00 | 0.59869E-02 | - | - | -0.11035E-01 | 0.15059E-01 |
| 43 | 0.67104E+00 | -0.20015E+00 | 0.10116E+01 | 0.65845E-02 | - | - | -0.11153E-01 | 0.23065E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10142E+01 | 0.66801E-02 | - | - | 0.17731E-02 | 0.40459E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10089E+01 | 0.60729E-02 | - | - | -0.93679E-03 | 0.51252E-01 |
| 46 | 0.41400E+00 | -0.20015E+00 | 0.10117E+01 | 0.10688E-01 | - | - | 0.80209E-02 | 0.52032E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.99848E+00 | 0.10033E-01 | - | - | 0.37019E-02 | 0.55669E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.98081E+00 | 0.13150E-01 | - | - | -0.56196E-01 | 0.27798E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.94641E+00 | 0.13043E-01 | - | - | -0.61569E-01 | 0.18486E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.92296E+00 | 0.12814E-01 | - | - | -0.37886E-01 | 0.19975E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.91568E+00 | 0.10431E-01 | - | - | -0.87156E-02 | 0.30905E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.93496E+00 | 0.65752E-02 | - | - | 0.25540E-01 | 0.22888E-01 |

I1 = 0.0945 I2 = 2.7169 I3 = 0.0479 I4 = -2.3505

Lift = 0.5088

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 4 at y/c = 0.102

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99587E-01 | -0.20015E+00 | 0.93420E+00 | 0.19900E-01 | - | - | 0.19384E-01 | 0.18092E-01 |
| 2 | -0.99587E-01 | -0.13310E+00 | 0.91429E+00 | 0.17851E-01 | - | - | 0.45168E-01 | 0.19908E-01 |
| 3 | -0.99587E-01 | -0.66410E-01 | 0.90094E+00 | 0.16627E-01 | - | - | 0.89133E-01 | 0.22592E-01 |
| 4 | -0.99587E-01 | 0.27892E-03 | 0.92814E+00 | 0.16024E-01 | - | - | 0.15491E+00 | 0.25403E-01 |
| 5 | -0.99587E-01 | 0.66968E-01 | 0.99648E+00 | 0.13452E-01 | - | - | 0.18109E+00 | 0.22709E-01 |
| 6 | -0.99587E-01 | 0.13353E+00 | 0.10490E+01 | 0.13256E-01 | - | - | 0.15580E+00 | 0.23870E-01 |
| 7 | -0.99587E-01 | 0.20022E+00 | 0.10777E+01 | 0.11243E-01 | - | - | 0.13529E+00 | 0.17717E-01 |
| 8 | -0.10007E+00 | 0.20022E+00 | 0.10765E+01 | 0.12051E-01 | - | - | 0.13325E+00 | 0.17292E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.11267E+01 | 0.12929E-01 | - | - | 0.14661E+00 | 0.17700E-01 |
| 10 | 0.71569E-01 | 0.20022E+00 | 0.11935E+01 | 0.14597E-01 | - | - | 0.12382E+00 | 0.17500E-01 |
| 11 | 0.15721E+00 | 0.20022E+00 | 0.12302E+01 | 0.10439E-01 | - | - | 0.67416E-01 | 0.21618E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.12299E+01 | 0.11867E-01 | - | - | 0.73480E-03 | 0.19188E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.12196E+01 | 0.11269E-01 | - | - | -0.42978E-01 | 0.17414E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11874E+01 | 0.11813E-01 | - | - | -0.80961E-01 | 0.13541E-01 |
| 15 | 0.50025E+00 | 0.20022E+00 | 0.11561E+01 | 0.75178E-02 | - | - | -0.10128E+00 | 0.14602E-01 |
| 16 | 0.58601E+00 | 0.20022E+00 | 0.11324E+01 | 0.10417E-01 | - | - | -0.11909E+00 | 0.12476E-01 |
| 17 | 0.67165E+00 | 0.20022E+00 | 0.11099E+01 | 0.10529E-01 | - | - | -0.12194E+00 | 0.13899E-01 |
| 18 | 0.75740E+00 | 0.20022E+00 | 0.10900E+01 | 0.10253E-01 | - | - | -0.12203E+00 | 0.10580E-01 |
| 19 | 0.84304E+00 | 0.20022E+00 | 0.10694E+01 | 0.10369E-01 | - | - | -0.11696E+00 | 0.15894E-01 |
| 20 | 0.92880E+00 | 0.20022E+00 | 0.10525E+01 | 0.11948E-01 | - | - | -0.10822E+00 | 0.12957E-01 |
| 21 | 0.10146E+01 | 0.20022E+00 | 0.10409E+01 | 0.12872E-01 | - | - | -0.10119E+00 | 0.13315E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10346E+01 | 0.13131E-01 | - | - | -0.86670E-01 | 0.10878E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10350E+01 | 0.12075E-01 | - | - | -0.90862E-01 | 0.14246E-01 |
| 24 | 0.11002E+01 | 0.13305E+00 | 0.10256E+01 | 0.13500E-01 | - | - | -0.93869E-01 | 0.15567E-01 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10149E+01 | 0.20767E-01 | - | - | -0.10615E+00 | 0.19177E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.99313E+00 | 0.35673E-01 | - | - | -0.13967E+00 | 0.28911E-01 |
| 27 | 0.11002E+01 | -0.66896E-01 | 0.99027E+00 | 0.21365E-01 | - | - | -0.11860E+00 | 0.19858E-01 |
| 28 | 0.11002E+01 | -0.13358E+00 | 0.98903E+00 | 0.14024E-01 | - | - | -0.70596E-01 | 0.12097E-01 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.99021E+00 | 0.13943E-01 | - | - | -0.57841E-01 | 0.11163E-01 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.98849E+00 | 0.10310E-01 | - | - | -0.57295E-01 | 0.95408E-02 |
| 31 | 0.10140E+01 | -0.20027E+00 | 0.97977E+00 | 0.12260E-01 | - | - | -0.51872E-01 | 0.12747E-01 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.98178E+00 | 0.12204E-01 | - | - | -0.74911E-01 | 0.51902E-01 |
| 33 | 0.84244E+00 | -0.20027E+00 | 0.98953E+00 | 0.14256E-01 | - | - | -0.13344E+00 | 0.54232E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.99933E+00 | 0.12169E-01 | - | - | -0.10427E+00 | 0.57892E-01 |
| 35 | 0.67104E+00 | -0.20027E+00 | 0.10112E+01 | 0.12543E-01 | - | - | -0.95271E-01 | 0.52329E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10108E+01 | 0.82453E-02 | - | - | -0.87806E-01 | 0.52819E-01 |
| 37 | 0.49964E+00 | -0.20027E+00 | 0.10121E+01 | 0.13685E-01 | - | - | -0.93561E-01 | 0.48766E-01 |
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10080E+01 | 0.12620E-01 | - | - | -0.98371E-01 | 0.45410E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 39 | 0.32824E+00 | -0.20027E+00 | 0.99536E+00 | 0.14944E-01 | - | - | -0.69983E-01 | 0.16434E-01 |
| 40 | 0.24248E+00 | -0.20027E+00 | 0.97609E+00 | 0.15242E-01 | - | - | -0.74723E-01 | 0.15590E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.94706E+00 | 0.17163E-01 | - | - | -0.66135E-01 | 0.15010E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.92203E+00 | 0.19565E-01 | - | - | -0.39726E-01 | 0.17982E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.91832E+00 | 0.14345E-01 | - | - | -0.17199E-01 | 0.20891E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.92969E+00 | 0.15713E-01 | - | - | 0.24647E-01 | 0.18547E-01 |

I1 = 0.0942 I2 = 2.7254 I3 = 0.0807 I4 = -2.3502

Lift = 0.5500

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 5 at y/c = 0.102

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.39985E+00 | 0.96480E+00 | 0.16425E-01 | - | - | 0.64046E-02 | 0.21718E-01 |
| 2 | -0.10019E+00 | -0.26648E+00 | 0.94738E+00 | 0.17018E-01 | - | - | 0.51703E-02 | 0.18065E-01 |
| 3 | -0.10019E+00 | -0.13310E+00 | 0.91354E+00 | 0.19201E-01 | - | - | 0.51391E-01 | 0.18286E-01 |
| 4 | -0.10019E+00 | 0.27892E-03 | 0.93117E+00 | 0.13267E-01 | - | - | 0.15303E+00 | 0.23738E-01 |
| 5 | -0.10019E+00 | 0.13353E+00 | 0.10445E+01 | 0.14246E-01 | - | - | 0.15763E+00 | 0.17889E-01 |
| 6 | -0.10019E+00 | 0.26691E+00 | 0.10840E+01 | 0.10639E-01 | - | - | 0.97515E-01 | 0.15936E-01 |
| 7 | -0.10019E+00 | 0.40029E+00 | 0.10910E+01 | 0.11101E-01 | - | - | 0.72096E-01 | 0.15651E-01 |
| 8 | -0.99830E-01 | 0.40029E+00 | 0.10886E+01 | 0.11939E-01 | - | - | 0.64010E-01 | 0.16885E-01 |
| 9 | -0.14070E-01 | 0.40029E+00 | 0.11074E+01 | 0.10531E-01 | - | - | 0.61986E-01 | 0.13231E-01 |
| 10 | 0.71690E-01 | 0.40029E+00 | 0.11277E+01 | 0.96810E-02 | - | - | 0.45137E-01 | 0.15474E-01 |
| 11 | 0.15745E+00 | 0.40029E+00 | 0.11435E+01 | 0.73190E-02 | - | - | 0.32382E-01 | 0.16091E-01 |
| 12 | 0.24297E+00 | 0.40029E+00 | 0.11476E+01 | 0.10520E-01 | - | - | 0.13670E-03 | 0.15769E-01 |
| 13 | 0.32873E+00 | 0.40029E+00 | 0.11484E+01 | 0.96004E-02 | - | - | -0.12623E-01 | 0.17732E-01 |
| 14 | 0.41437E+00 | 0.40029E+00 | 0.11392E+01 | 0.10641E-01 | - | - | -0.40328E-01 | 0.16799E-01 |
| 15 | 0.50013E+00 | 0.40029E+00 | 0.11303E+01 | 0.96611E-02 | - | - | -0.48096E-01 | 0.15757E-01 |
| 16 | 0.58588E+00 | 0.40029E+00 | 0.11122E+01 | 0.92871E-02 | - | - | -0.67983E-01 | 0.16686E-01 |
| 17 | 0.67152E+00 | 0.40029E+00 | 0.11006E+01 | 0.13366E-01 | - | - | -0.75664E-01 | 0.15534E-01 |
| 18 | 0.75728E+00 | 0.40029E+00 | 0.10893E+01 | 0.11291E-01 | - | - | -0.82201E-01 | 0.23067E-01 |
| 19 | 0.84292E+00 | 0.40029E+00 | 0.10747E+01 | 0.11690E-01 | - | - | -0.80223E-01 | 0.17347E-01 |
| 20 | 0.92868E+00 | 0.40029E+00 | 0.10638E+01 | 0.10450E-01 | - | - | -0.85445E-01 | 0.16856E-01 |
| 21 | 0.10144E+01 | 0.40029E+00 | 0.10584E+01 | 0.10395E-01 | - | - | -0.73074E-01 | 0.24532E-01 |
| 22 | 0.11001E+01 | 0.40029E+00 | 0.10504E+01 | 0.11590E-01 | - | - | -0.73771E-01 | 0.18086E-01 |
| 23 | 0.11001E+01 | 0.39992E+00 | 0.10520E+01 | 0.12325E-01 | - | - | -0.73879E-01 | 0.19644E-01 |
| 24 | 0.11001E+01 | 0.26643E+00 | 0.10405E+01 | 0.12766E-01 | - | - | -0.81304E-01 | 0.19259E-01 |
| 25 | 0.11001E+01 | 0.13305E+00 | 0.10272E+01 | 0.14216E-01 | - | - | -0.91320E-01 | 0.18244E-01 |
| 26 | 0.11001E+01 | -0.20709E-03 | 0.99305E+00 | 0.39700E-01 | - | - | -0.13668E+00 | 0.34047E-01 |
| 27 | 0.11001E+01 | -0.13358E+00 | 0.98735E+00 | 0.14500E-01 | - | - | -0.72920E-01 | 0.19142E-01 |
| 28 | 0.11001E+01 | -0.26696E+00 | 0.99306E+00 | 0.11381E-01 | - | - | -0.52194E-01 | 0.19117E-01 |
| 29 | 0.11001E+01 | -0.40022E+00 | 0.99903E+00 | 0.12837E-01 | - | - | -0.43105E-01 | 0.16453E-01 |
| 30 | 0.10995E+01 | -0.40022E+00 | 0.99980E+00 | 0.11278E-01 | - | - | -0.42224E-01 | 0.17284E-01 |
| 31 | 0.10142E+01 | -0.40022E+00 | 0.99937E+00 | 0.15038E-01 | - | - | -0.39158E-01 | 0.17144E-01 |
| 32 | 0.92844E+00 | -0.40022E+00 | 0.99678E+00 | 0.12444E-01 | - | - | -0.39960E-01 | 0.17157E-01 |
| 33 | 0.84268E+00 | -0.40022E+00 | 0.99719E+00 | 0.10190E-01 | - | - | -0.36973E-01 | 0.18742E-01 |
| 34 | 0.75680E+00 | -0.40022E+00 | 0.99720E+00 | 0.12857E-01 | - | - | -0.34377E-01 | 0.20391E-01 |
| 35 | 0.67104E+00 | -0.40022E+00 | 0.10004E+01 | 0.13318E-01 | - | - | -0.31430E-01 | 0.19411E-01 |
| 36 | 0.58552E+00 | -0.40022E+00 | 0.99710E+00 | 0.11329E-01 | - | - | -0.30796E-01 | 0.16955E-01 |
| 37 | 0.49964E+00 | -0.40022E+00 | 0.10001E+01 | 0.13205E-01 | - | - | -0.33922E-01 | 0.18226E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.40022E+00 | 0.99532E+00 | 0.14384E-01 | - | - | -0.40269E-01 | 0.16429E-01 |
| 39 | 0.32848E+00 | -0.40022E+00 | 0.99002E+00 | 0.13349E-01 | - | - | -0.37757E-01 | 0.18052E-01 |
| 40 | 0.24272E+00 | -0.40022E+00 | 0.97906E+00 | 0.15612E-01 | - | - | -0.34246E-01 | 0.18966E-01 |
| 41 | 0.15696E+00 | -0.40022E+00 | 0.97537E+00 | 0.16377E-01 | - | - | -0.34124E-01 | 0.16580E-01 |
| 42 | 0.71326E-01 | -0.40022E+00 | 0.96539E+00 | 0.15454E-01 | - | - | -0.18298E-01 | 0.21325E-01 |
| 43 | -0.14434E-01 | -0.40022E+00 | 0.95721E+00 | 0.11030E-01 | - | - | -0.86719E-03 | 0.21544E-01 |
| 44 | -0.10007E+00 | -0.40022E+00 | 0.96415E+00 | 0.13862E-01 | - | - | 0.98170E-02 | 0.20473E-01 |

I1 = 0.1351 I2 = 2.6601 I3 = 0.1357 I4 = -2.3717

Lift = 0.5591

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20015E+00 | 0.92946E+00 | 0.23427E-01 | - | - | 0.32971E-01 | 0.24772E-01 |
| 2 | -0.10007E+00 | -0.13322E+00 | 0.91717E+00 | 0.23221E-01 | - | - | 0.40792E-01 | 0.40772E-01 |
| 3 | -0.10007E+00 | -0.66410E-01 | 0.91048E+00 | 0.22777E-01 | - | - | 0.10310E+00 | 0.25635E-01 |
| 4 | -0.10007E+00 | 0.15778E-03 | 0.93961E+00 | 0.14335E-01 | - | - | 0.16585E+00 | 0.24382E-01 |
| 5 | -0.10007E+00 | 0.66968E-01 | 0.10096E+01 | 0.13168E-01 | - | - | 0.18236E+00 | 0.22926E-01 |
| 6 | -0.10007E+00 | 0.13353E+00 | 0.10601E+01 | 0.14290E-01 | - | - | 0.16061E+00 | 0.27074E-01 |
| 7 | -0.10007E+00 | 0.20022E+00 | 0.10831E+01 | 0.12321E-01 | - | - | 0.12589E+00 | 0.18852E-01 |
| 8 | -0.99465E-01 | 0.20022E+00 | 0.10848E+01 | 0.13588E-01 | - | - | 0.12824E+00 | 0.17673E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.11311E+01 | 0.12528E-01 | - | - | 0.13519E+00 | 0.25388E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.11935E+01 | 0.13521E-01 | - | - | 0.12397E+00 | 0.17925E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.12367E+01 | 0.14012E-01 | - | - | 0.64312E-01 | 0.20778E-01 |
| 12 | 0.24321E+00 | 0.20022E+00 | 0.12428E+01 | 0.14144E-01 | - | - | -0.44035E-03 | 0.17473E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.12240E+01 | 0.14078E-01 | - | - | -0.43567E-01 | 0.31994E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11961E+01 | 0.13634E-01 | - | - | -0.74594E-01 | 0.35709E-01 |
| 15 | 0.50013E+00 | 0.20022E+00 | 0.11681E+01 | 0.12325E-01 | - | - | -0.91534E-01 | 0.42850E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.11434E+01 | 0.12421E-01 | - | - | -0.11149E+00 | 0.31542E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.11190E+01 | 0.13673E-01 | - | - | -0.12480E+00 | 0.35520E-01 |
| 18 | 0.75728E+00 | 0.20022E+00 | 0.10989E+01 | 0.13145E-01 | - | - | -0.12865E+00 | 0.27791E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10782E+01 | 0.13766E-01 | - | - | -0.14906E+00 | 0.51222E-01 |
| 20 | 0.92868E+00 | 0.20022E+00 | 0.10636E+01 | 0.18631E-01 | - | - | -0.16376E+00 | 0.50506E-01 |
| 21 | 0.10144E+01 | 0.20022E+00 | 0.10533E+01 | 0.22943E-01 | - | - | -0.15292E+00 | 0.51998E-01 |
| 22 | 0.11001E+01 | 0.20022E+00 | 0.10426E+01 | 0.17348E-01 | - | - | -0.13740E+00 | 0.49046E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10412E+01 | 0.17020E-01 | - | - | -0.12082E+00 | 0.43741E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10311E+01 | 0.11667E-01 | - | - | -0.95782E-01 | 0.10903E-01 |
| 25 | 0.11001E+01 | 0.66482E-01 | 0.10223E+01 | 0.17930E-01 | - | - | -0.99806E-01 | 0.11208E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10115E+01 | 0.17181E-01 | - | - | -0.10316E+00 | 0.82154E-02 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99372E+00 | 0.13590E-01 | - | - | -0.96139E-01 | 0.80080E-02 |
| 28 | 0.11001E+01 | -0.13358E+00 | 0.98978E+00 | 0.19394E-01 | - | - | -0.67842E-01 | 0.11804E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.99479E+00 | 0.18004E-01 | - | - | -0.58837E-01 | 0.91714E-02 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.99261E+00 | 0.15678E-01 | - | - | -0.66814E-01 | 0.31953E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.98433E+00 | 0.16849E-01 | - | - | -0.56214E-01 | 0.26875E-01 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.98602E+00 | 0.18548E-01 | - | - | -0.32917E-01 | 0.16803E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.99342E+00 | 0.13815E-01 | - | - | -0.43112E-01 | 0.42533E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10063E+01 | 0.14427E-01 | - | - | -0.42724E-01 | 0.39235E-01 |
| 35 | 0.67116E+00 | -0.20027E+00 | 0.10115E+01 | 0.13287E-01 | - | - | -0.33732E-01 | 0.32876E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10144E+01 | 0.14494E-01 | - | - | -0.36005E-01 | 0.24266E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10157E+01 | 0.16506E-01 | - | - | -0.52607E-01 | 0.33141E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10085E+01 | 0.11969E-01 | - | - | -0.61784E-01 | 0.23714E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.99628E+00 | 0.15575E-01 | - | - | -0.75602E-01 | 0.10023E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.97449E+00 | 0.17591E-01 | - | - | -0.76474E-01 | 0.11680E-01 |
| 41 | 0.15672E+00 | -0.20027E+00 | 0.94501E+00 | 0.19241E-01 | - | - | -0.70097E-01 | 0.13936E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.92590E+00 | 0.24455E-01 | - | - | -0.47701E-01 | 0.29635E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.91503E+00 | 0.23300E-01 | - | - | -0.46928E-01 | 0.49231E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.93009E+00 | 0.19248E-01 | - | - | -0.18284E-01 | 0.52448E-01 |

I1 = 0.0977 I2 = 2.7455 I3 = 0.0728 I4 = -2.3542

Lift = 0.5619

Rectangular Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.92688E+00 | 0.14619E-01 | - | - | 0.36830E-01 | 0.18812E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.91099E+00 | 0.13276E-01 | - | - | 0.59892E-01 | 0.19886E-01 |
| 3 | -0.10044E+00 | -0.66531E-01 | 0.90484E+00 | 0.10467E-01 | - | - | 0.11676E+00 | 0.20954E-01 |
| 4 | -0.10044E+00 | 0.15778E-03 | 0.94422E+00 | 0.78117E-02 | - | - | 0.17179E+00 | 0.19298E-01 |
| 5 | -0.10044E+00 | 0.66846E-01 | 0.10129E+01 | 0.10356E-01 | - | - | 0.18575E+00 | 0.25658E-01 |
| 6 | -0.10044E+00 | 0.13341E+00 | 0.10602E+01 | 0.93876E-02 | - | - | 0.16993E+00 | 0.17907E-01 |
| 7 | -0.10044E+00 | 0.20010E+00 | 0.10871E+01 | 0.94420E-02 | - | - | 0.13360E+00 | 0.20543E-01 |
| 8 | -0.99830E-01 | 0.20010E+00 | 0.10869E+01 | 0.10963E-01 | - | - | 0.12278E+00 | 0.15891E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11383E+01 | 0.10033E-01 | - | - | 0.14778E+00 | 0.18159E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11979E+01 | 0.10486E-01 | - | - | 0.11857E+00 | 0.16586E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12458E+01 | 0.12015E-01 | - | - | 0.66661E-01 | 0.19450E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12441E+01 | 0.94439E-02 | - | - | 0.56602E-02 | 0.21947E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12294E+01 | 0.87014E-02 | - | - | -0.45249E-01 | 0.19832E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11957E+01 | 0.10382E-01 | - | - | -0.85200E-01 | 0.12645E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11664E+01 | 0.85782E-02 | - | - | -0.10869E+00 | 0.15260E-01 |
| 16 | 0.58613E+00 | 0.20010E+00 | 0.11449E+01 | 0.81902E-02 | - | - | -0.11938E+00 | 0.11504E-01 |
| 17 | 0.67177E+00 | 0.20010E+00 | 0.11206E+01 | 0.77807E-02 | - | - | -0.12520E+00 | 0.16172E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10980E+01 | 0.58797E-02 | - | - | -0.12618E+00 | 0.15849E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10754E+01 | 0.93573E-02 | - | - | -0.11816E+00 | 0.15222E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10572E+01 | 0.71520E-02 | - | - | -0.11179E+00 | 0.14860E-01 |
| 21 | 0.10147E+01 | 0.20010E+00 | 0.10468E+01 | 0.80614E-02 | - | - | -0.10063E+00 | 0.12431E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10398E+01 | 0.92226E-02 | - | - | -0.89604E-01 | 0.14357E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10413E+01 | 0.80435E-02 | - | - | -0.94231E-01 | 0.13753E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10333E+01 | 0.11708E-01 | - | - | -0.92497E-01 | 0.97613E-02 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10187E+01 | 0.70207E-02 | - | - | -0.99960E-01 | 0.10268E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10066E+01 | 0.74153E-02 | - | - | -0.10012E+00 | 0.90429E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98881E+00 | 0.80913E-02 | - | - | -0.93039E-01 | 0.10661E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.98660E+00 | 0.15208E-01 | - | - | -0.65094E-01 | 0.16614E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.99015E+00 | 0.83356E-02 | - | - | -0.55845E-01 | 0.10092E-01 |
| 30 | 0.10994E+01 | -0.20015E+00 | 0.99310E+00 | 0.94102E-02 | - | - | -0.55314E-01 | 0.91917E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98715E+00 | 0.93640E-02 | - | - | -0.45285E-01 | 0.12347E-01 |
| 32 | 0.92820E+00 | -0.20015E+00 | 0.98547E+00 | 0.61447E-02 | - | - | -0.31686E-01 | 0.10604E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.99103E+00 | 0.70143E-02 | - | - | -0.22751E-01 | 0.11602E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10045E+01 | 0.85688E-02 | - | - | -0.24452E-01 | 0.13278E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10105E+01 | 0.72453E-02 | - | - | -0.28007E-01 | 0.13431E-01 |
| 36 | 0.58540E+00 | -0.20015E+00 | 0.10178E+01 | 0.82812E-02 | - | - | -0.38507E-01 | 0.84150E-02 |
| 37 | 0.49952E+00 | -0.20015E+00 | 0.10187E+01 | 0.11847E-01 | - | - | -0.51012E-01 | 0.10670E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20015E+00 | 0.10096E+01 | 0.11883E-01 | - | - | -0.65944E-01 | 0.17396E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.99141E+00 | 0.79659E-02 | - | - | -0.75041E-01 | 0.15334E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.97047E+00 | 0.12746E-01 | - | - | -0.78234E-01 | 0.10922E-01 |
| 41 | 0.15672E+00 | -0.20015E+00 | 0.94005E+00 | 0.15231E-01 | - | - | -0.69412E-01 | 0.11317E-01 |
| 42 | 0.71083E-01 | -0.20015E+00 | 0.91403E+00 | 0.14590E-01 | - | - | -0.39285E-01 | 0.13921E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.90675E+00 | 0.12440E-01 | - | - | -0.31942E-03 | 0.13161E-01 |
| 44 | -0.10032E+00 | -0.20015E+00 | 0.92819E+00 | 0.10456E-01 | - | - | 0.27834E-01 | 0.17899E-01 |

I1 = 0.1059 I2 = 2.7482 I3 = 0.0696 I4 = -2.3490

Lift = 0.5747

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 13 at y/c = -1.483

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10089E+01 | 0.72293E-02 | - | - | -0.16061E-01 | 0.16474E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10093E+01 | 0.68024E-02 | - | - | -0.14645E-01 | 0.16098E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.98741E+00 | 0.70662E-02 | - | - | -0.15369E-01 | 0.16251E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.97399E+00 | 0.64985E-02 | - | - | -0.62784E-02 | 0.14575E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.96745E+00 | 0.78543E-02 | - | - | 0.46657E-02 | 0.14899E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.97138E+00 | 0.12677E-01 | - | - | 0.24287E-01 | 0.16838E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.97710E+00 | 0.62118E-02 | - | - | 0.31018E-01 | 0.15843E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.98859E+00 | 0.68048E-02 | - | - | 0.41986E-01 | 0.16428E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.99738E+00 | 0.68474E-02 | - | - | 0.46610E-01 | 0.17197E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10040E+01 | 0.66360E-02 | - | - | 0.41726E-01 | 0.15837E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10096E+01 | 0.70739E-02 | - | - | 0.36587E-01 | 0.14101E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10101E+01 | 0.62749E-02 | - | - | 0.47447E-01 | 0.16916E-01 |
| 13 | 0.70185E-01 | 0.20010E+00 | 0.10214E+01 | 0.76776E-02 | - | - | 0.58993E-01 | 0.15699E-01 |
| 14 | 0.14008E+00 | 0.20010E+00 | 0.10468E+01 | 0.72898E-02 | - | - | 0.53273E-01 | 0.19121E-01 |
| 15 | 0.26009E+00 | 0.20010E+00 | 0.10593E+01 | 0.71731E-02 | - | - | 0.43955E-01 | 0.16887E-01 |
| 16 | 0.38023E+00 | 0.20010E+00 | 0.10606E+01 | 0.73204E-02 | - | - | 0.23322E-01 | 0.16411E-01 |
| 17 | 0.50013E+00 | 0.20010E+00 | 0.10538E+01 | 0.66414E-02 | - | - | 0.43262E-02 | 0.13276E-01 |
| 18 | 0.62026E+00 | 0.20010E+00 | 0.10477E+01 | 0.83682E-02 | - | - | 0.77680E-02 | 0.14575E-01 |
| 19 | 0.74040E+00 | 0.20010E+00 | 0.10373E+01 | 0.60227E-02 | - | - | 0.92127E-02 | 0.14322E-01 |
| 20 | 0.86017E+00 | 0.20010E+00 | 0.10261E+01 | 0.73525E-02 | - | - | 0.59087E-02 | 0.14619E-01 |
| 21 | 0.98006E+00 | 0.20010E+00 | 0.10201E+01 | 0.63846E-02 | - | - | -0.16625E-02 | 0.13292E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10182E+01 | 0.80117E-02 | - | - | 0.12389E-01 | 0.18388E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10166E+01 | 0.70700E-02 | - | - | 0.13112E-01 | 0.15313E-01 |
| 24 | 0.11001E+01 | 0.15989E+00 | 0.10151E+01 | 0.73107E-02 | - | - | 0.16482E-01 | 0.17020E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10121E+01 | 0.72420E-02 | - | - | 0.13017E-01 | 0.16973E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10029E+01 | 0.22019E-01 | - | - | 0.10699E-01 | 0.28261E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.96473E+00 | 0.47267E-01 | - | - | 0.28241E-01 | 0.45388E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.96893E+00 | 0.49532E-01 | - | - | -0.68992E-02 | 0.45508E-01 |
| 29 | 0.11001E+01 | -0.40171E-01 | 0.10046E+01 | 0.82385E-02 | - | - | -0.13673E-01 | 0.28051E-01 |
| 30 | 0.11001E+01 | -0.80136E-01 | 0.10075E+01 | 0.58706E-02 | - | - | 0.30311E-01 | 0.16929E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10111E+01 | 0.69351E-02 | - | - | 0.37599E-01 | 0.14715E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10126E+01 | 0.69712E-02 | - | - | 0.40520E-01 | 0.13393E-01 |
| 33 | 0.11001E+01 | -0.20015E+00 | 0.10145E+01 | 0.72645E-02 | - | - | 0.40736E-01 | 0.16908E-01 |
| 34 | 0.10995E+01 | -0.20015E+00 | 0.10155E+01 | 0.62252E-02 | - | - | 0.43020E-01 | 0.18295E-01 |
| 35 | 0.97982E+00 | -0.20015E+00 | 0.10155E+01 | 0.59123E-02 | - | - | 0.18798E-01 | 0.51465E-01 |
| 36 | 0.85993E+00 | -0.20015E+00 | 0.10240E+01 | 0.65896E-02 | - | - | -0.96254E-02 | 0.48712E-01 |
| 37 | 0.73979E+00 | -0.20015E+00 | 0.10342E+01 | 0.68530E-02 | - | - | -0.35855E-01 | 0.50637E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20015E+00 | 0.10437E+01 | 0.54451E-02 | - | - | 0.95217E-02 | 0.40708E-01 |
| 39 | 0.49976E+00 | -0.20015E+00 | 0.10535E+01 | 0.70651E-02 | - | - | 0.11423E-02 | 0.52178E-01 |
| 40 | 0.37987E+00 | -0.20015E+00 | 0.10625E+01 | 0.80715E-02 | - | - | -0.94821E-02 | 0.46333E-01 |
| 41 | 0.25985E+00 | -0.20015E+00 | 0.10695E+01 | 0.70567E-02 | - | - | -0.45868E-01 | 0.51025E-01 |
| 42 | 0.13971E+00 | -0.20015E+00 | 0.10675E+01 | 0.72451E-02 | - | - | -0.14763E-01 | 0.29981E-01 |
| 43 | 0.19700E-01 | -0.20015E+00 | 0.10352E+01 | 0.75221E-02 | - | - | -0.13984E-01 | 0.26428E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.10071E+01 | 0.73302E-02 | - | - | -0.13721E-01 | 0.15733E-01 |

I1 = 0.0134 I2 = 2.4926 I3 = -0.0146 I4 = -2.5000

Lift = -0.0086

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 12 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10021E+01 | 0.64515E-02 | - | - | -0.30400E-01 | 0.16975E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.98772E+00 | 0.80857E-02 | - | - | -0.29766E-01 | 0.15903E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.96557E+00 | 0.73294E-02 | - | - | -0.32201E-01 | 0.14801E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.94318E+00 | 0.88700E-02 | - | - | -0.15904E-01 | 0.18432E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.92989E+00 | 0.92214E-02 | - | - | 0.74323E-02 | 0.17911E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93599E+00 | 0.10467E-01 | - | - | 0.29221E-01 | 0.14882E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95304E+00 | 0.75104E-02 | - | - | 0.49198E-01 | 0.15341E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.97136E+00 | 0.76317E-02 | - | - | 0.58410E-01 | 0.16776E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.98421E+00 | 0.65229E-02 | - | - | 0.57231E-01 | 0.16929E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.99592E+00 | 0.73627E-02 | - | - | 0.54303E-01 | 0.18649E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10046E+01 | 0.66743E-02 | - | - | 0.53099E-01 | 0.14058E-01 |
| 12 | -0.99830E-01 | 0.20010E+00 | 0.10050E+01 | 0.64419E-02 | - | - | 0.53186E-01 | 0.12664E-01 |
| 13 | 0.20064E-01 | 0.20010E+00 | 0.10159E+01 | 0.56235E-02 | - | - | 0.62323E-01 | 0.16594E-01 |
| 14 | 0.14020E+00 | 0.20010E+00 | 0.10541E+01 | 0.66307E-02 | - | - | 0.81053E-01 | 0.17863E-01 |
| 15 | 0.26022E+00 | 0.20010E+00 | 0.10677E+01 | 0.65756E-02 | - | - | 0.37389E-01 | 0.17378E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.10683E+01 | 0.85189E-02 | - | - | 0.30010E-01 | 0.14527E-01 |
| 17 | 0.50025E+00 | 0.20010E+00 | 0.10615E+01 | 0.77117E-02 | - | - | 0.14564E-01 | 0.16049E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10502E+01 | 0.75604E-02 | - | - | 0.26044E-02 | 0.12644E-01 |
| 19 | 0.74016E+00 | 0.20010E+00 | 0.10402E+01 | 0.66688E-02 | - | - | 0.75005E-03 | 0.17345E-01 |
| 20 | 0.86029E+00 | 0.20010E+00 | 0.10253E+01 | 0.74172E-02 | - | - | -0.20622E-02 | 0.14287E-01 |
| 21 | 0.98019E+00 | 0.20010E+00 | 0.10151E+01 | 0.67082E-02 | - | - | 0.44112E-02 | 0.12915E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10140E+01 | 0.55390E-02 | - | - | 0.23352E-01 | 0.16183E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10148E+01 | 0.69836E-02 | - | - | 0.18874E-01 | 0.12407E-01 |
| 24 | 0.11002E+01 | 0.15989E+00 | 0.10118E+01 | 0.72311E-02 | - | - | 0.14421E-01 | 0.14377E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10074E+01 | 0.87011E-02 | - | - | 0.22844E-01 | 0.13723E-01 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.99978E+00 | 0.16224E-01 | - | - | 0.26355E-01 | 0.16682E-01 |
| 27 | 0.11002E+01 | 0.39880E-01 | 0.98733E+00 | 0.27866E-01 | - | - | 0.30601E-01 | 0.20628E-01 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.92194E+00 | 0.51220E-01 | - | - | 0.73855E-01 | 0.40332E-01 |
| 29 | 0.11002E+01 | -0.40171E-01 | 0.99261E+00 | 0.69833E-02 | - | - | 0.78011E-01 | 0.13934E-01 |
| 30 | 0.11002E+01 | -0.80136E-01 | 0.10006E+01 | 0.68617E-02 | - | - | 0.62947E-01 | 0.12110E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.10047E+01 | 0.59983E-02 | - | - | 0.58471E-01 | 0.12529E-01 |
| 32 | 0.11002E+01 | -0.16007E+00 | 0.10091E+01 | 0.81759E-02 | - | - | 0.47128E-01 | 0.12828E-01 |
| 33 | 0.11002E+01 | -0.20015E+00 | 0.10119E+01 | 0.57891E-02 | - | - | 0.46620E-01 | 0.13729E-01 |
| 34 | 0.10997E+01 | -0.20015E+00 | 0.10116E+01 | 0.81195E-02 | - | - | 0.42332E-01 | 0.12188E-01 |
| 35 | 0.97970E+00 | -0.20015E+00 | 0.10130E+01 | 0.78943E-02 | - | - | 0.25912E-01 | 0.43627E-01 |
| 36 | 0.85993E+00 | -0.20015E+00 | 0.10227E+01 | 0.64326E-02 | - | - | -0.22687E-02 | 0.49962E-01 |
| 37 | 0.73991E+00 | -0.20015E+00 | 0.10350E+01 | 0.73750E-02 | - | - | -0.37633E-01 | 0.61496E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20015E+00 | 0.10484E+01 | 0.68807E-02 | - | - | 0.51339E-01 | 0.27652E-01 |
| 39 | 0.49988E+00 | -0.20015E+00 | 0.10589E+01 | 0.72693E-02 | - | - | 0.18549E-01 | 0.53201E-01 |
| 40 | 0.37987E+00 | -0.20015E+00 | 0.10694E+01 | 0.64301E-02 | - | - | -0.21092E-01 | 0.52865E-01 |
| 41 | 0.25973E+00 | -0.20015E+00 | 0.10778E+01 | 0.62195E-02 | - | - | -0.50176E-01 | 0.52178E-01 |
| 42 | 0.13984E+00 | -0.20015E+00 | 0.10827E+01 | 0.60745E-02 | - | - | -0.24281E-01 | 0.24353E-01 |
| 43 | 0.19578E-01 | -0.20015E+00 | 0.10462E+01 | 0.10484E-01 | - | - | -0.47853E-01 | 0.27809E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.10029E+01 | 0.93478E-02 | - | - | -0.33443E-01 | 0.16477E-01 |

I1 = 0.0152 I2 = 2.4973 I3 = -0.0358 I4 = -2.5108

Lift = -0.0341

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 11 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.30012E+00 | 0.10144E+01 | 0.93323E-02 | - | - | -0.27877E-01 | 0.16482E-01 |
| 2 | -0.10044E+00 | -0.23987E+00 | 0.10041E+01 | 0.10352E-01 | - | - | -0.33850E-01 | 0.19080E-01 |
| 3 | -0.10044E+00 | -0.17987E+00 | 0.98373E+00 | 0.10482E-01 | - | - | -0.39226E-01 | 0.18994E-01 |
| 4 | -0.10044E+00 | -0.11986E+00 | 0.95104E+00 | 0.10466E-01 | - | - | -0.52152E-01 | 0.19602E-01 |
| 5 | -0.10044E+00 | -0.59850E-01 | 0.91486E+00 | 0.11972E-01 | - | - | -0.11440E-01 | 0.16700E-01 |
| 6 | -0.10044E+00 | 0.15778E-03 | 0.91331E+00 | 0.12073E-01 | - | - | 0.31707E-01 | 0.18658E-01 |
| 7 | -0.10044E+00 | 0.60165E-01 | 0.94211E+00 | 0.11494E-01 | - | - | 0.69167E-01 | 0.15571E-01 |
| 8 | -0.10044E+00 | 0.12029E+00 | 0.96739E+00 | 0.10075E-01 | - | - | 0.72839E-01 | 0.16625E-01 |
| 9 | -0.10044E+00 | 0.18030E+00 | 0.99504E+00 | 0.90206E-02 | - | - | 0.80728E-01 | 0.14721E-01 |
| 10 | -0.10044E+00 | 0.24007E+00 | 0.10031E+01 | 0.98753E-02 | - | - | 0.63480E-01 | 0.17629E-01 |
| 11 | -0.10044E+00 | 0.30020E+00 | 0.10165E+01 | 0.91677E-02 | - | - | 0.61697E-01 | 0.13318E-01 |
| 12 | -0.99830E-01 | 0.30020E+00 | 0.10164E+01 | 0.74037E-02 | - | - | 0.68912E-01 | 0.14300E-01 |
| 13 | 0.20064E-01 | 0.30020E+00 | 0.10286E+01 | 0.78372E-02 | - | - | 0.70653E-01 | 0.97661E-02 |
| 14 | 0.14032E+00 | 0.30020E+00 | 0.10554E+01 | 0.97454E-02 | - | - | 0.66618E-01 | 0.12605E-01 |
| 15 | 0.26009E+00 | 0.30020E+00 | 0.10725E+01 | 0.81066E-02 | - | - | 0.57464E-01 | 0.11718E-01 |
| 16 | 0.38011E+00 | 0.30020E+00 | 0.10729E+01 | 0.84644E-02 | - | - | 0.28546E-01 | 0.14142E-01 |
| 17 | 0.50025E+00 | 0.30020E+00 | 0.10675E+01 | 0.99391E-02 | - | - | 0.16668E-01 | 0.14786E-01 |
| 18 | 0.62014E+00 | 0.30020E+00 | 0.10597E+01 | 0.91760E-02 | - | - | 0.38514E-02 | 0.14981E-01 |
| 19 | 0.74016E+00 | 0.30020E+00 | 0.10441E+01 | 0.84177E-02 | - | - | -0.26149E-02 | 0.11081E-01 |
| 20 | 0.86029E+00 | 0.30020E+00 | 0.10328E+01 | 0.84918E-02 | - | - | 0.41329E-02 | 0.11971E-01 |
| 21 | 0.98006E+00 | 0.30020E+00 | 0.10220E+01 | 0.84531E-02 | - | - | 0.19704E-02 | 0.18487E-01 |
| 22 | 0.11001E+01 | 0.30020E+00 | 0.10171E+01 | 0.10266E-01 | - | - | 0.11196E-01 | 0.20602E-01 |
| 23 | 0.11001E+01 | 0.29983E+00 | 0.10169E+01 | 0.95778E-02 | - | - | 0.13288E-01 | 0.18470E-01 |
| 24 | 0.11001E+01 | 0.23982E+00 | 0.10119E+01 | 0.88546E-02 | - | - | 0.10540E-01 | 0.16406E-01 |
| 25 | 0.11001E+01 | 0.17994E+00 | 0.10054E+01 | 0.96935E-02 | - | - | 0.15401E-01 | 0.15187E-01 |
| 26 | 0.11001E+01 | 0.11993E+00 | 0.99880E+00 | 0.95918E-02 | - | - | 0.19505E-01 | 0.13675E-01 |
| 27 | 0.11001E+01 | 0.59922E-01 | 0.98846E+00 | 0.10164E-01 | - | - | 0.29344E-01 | 0.11897E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.85613E+00 | 0.58249E-01 | - | - | 0.40035E-01 | 0.44525E-01 |
| 29 | 0.11001E+01 | -0.60093E-01 | 0.97969E+00 | 0.17838E-01 | - | - | 0.63595E-01 | 0.13637E-01 |
| 30 | 0.11001E+01 | -0.12010E+00 | 0.99572E+00 | 0.94754E-02 | - | - | 0.66033E-01 | 0.16635E-01 |
| 31 | 0.11001E+01 | -0.18023E+00 | 0.10036E+01 | 0.10679E-01 | - | - | 0.63183E-01 | 0.12979E-01 |
| 32 | 0.11001E+01 | -0.24012E+00 | 0.10092E+01 | 0.10747E-01 | - | - | 0.60866E-01 | 0.12834E-01 |
| 33 | 0.11001E+01 | -0.30024E+00 | 0.10115E+01 | 0.10221E-01 | - | - | 0.57241E-01 | 0.13546E-01 |
| 34 | 0.10996E+01 | -0.30024E+00 | 0.10124E+01 | 0.95630E-02 | - | - | 0.49290E-01 | 0.12199E-01 |
| 35 | 0.97982E+00 | -0.30024E+00 | 0.10156E+01 | 0.79658E-02 | - | - | 0.62462E-01 | 0.81231E-02 |
| 36 | 0.85993E+00 | -0.30024E+00 | 0.10262E+01 | 0.99500E-02 | - | - | 0.73620E-01 | 0.11816E-01 |
| 37 | 0.73979E+00 | -0.30024E+00 | 0.10341E+01 | 0.79054E-02 | - | - | 0.78331E-01 | 0.13029E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.30024E+00 | 0.10512E+01 | 0.10026E-01 | - | - | 0.68623E-01 | 0.10173E-01 |
| 39 | 0.49976E+00 | -0.30024E+00 | 0.10609E+01 | 0.73190E-02 | - | - | 0.57552E-01 | 0.13403E-01 |
| 40 | 0.37987E+00 | -0.30024E+00 | 0.10757E+01 | 0.81755E-02 | - | - | 0.34575E-01 | 0.13319E-01 |
| 41 | 0.25973E+00 | -0.30024E+00 | 0.10803E+01 | 0.72813E-02 | - | - | 0.71952E-02 | 0.11394E-01 |
| 42 | 0.13984E+00 | -0.30024E+00 | 0.10681E+01 | 0.10704E-01 | - | - | -0.13081E-01 | 0.12927E-01 |
| 43 | 0.19700E-01 | -0.30024E+00 | 0.10389E+01 | 0.97328E-02 | - | - | -0.26050E-01 | 0.15901E-01 |
| 44 | -0.10007E+00 | -0.30024E+00 | 0.10129E+01 | 0.97131E-02 | - | - | -0.20733E-01 | 0.16284E-01 |

I1 = 0.0224 I2 = 2.5131 I3 = -0.0481 I4 = -2.5110

Lift = -0.0235

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 10 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.29988E+00 | 0.10111E+01 | 0.12838E-01 | - | - | -0.23661E-01 | 0.17197E-01 |
| 2 | -0.99708E-01 | -0.23987E+00 | 0.99590E+00 | 0.12389E-01 | - | - | -0.21691E-01 | 0.19339E-01 |
| 3 | -0.99708E-01 | -0.17987E+00 | 0.98197E+00 | 0.13938E-01 | - | - | -0.44086E-01 | 0.19877E-01 |
| 4 | -0.99708E-01 | -0.11986E+00 | 0.94973E+00 | 0.15593E-01 | - | - | -0.36573E-01 | 0.22491E-01 |
| 5 | -0.99708E-01 | -0.59850E-01 | 0.91527E+00 | 0.14800E-01 | - | - | -0.41749E-02 | 0.19576E-01 |
| 6 | -0.99708E-01 | 0.15778E-03 | 0.91792E+00 | 0.14934E-01 | - | - | 0.49612E-01 | 0.20644E-01 |
| 7 | -0.99708E-01 | 0.60165E-01 | 0.94997E+00 | 0.13647E-01 | - | - | 0.83475E-01 | 0.21373E-01 |
| 8 | -0.99708E-01 | 0.12029E+00 | 0.98108E+00 | 0.12453E-01 | - | - | 0.88598E-01 | 0.18232E-01 |
| 9 | -0.99708E-01 | 0.18030E+00 | 0.10019E+01 | 0.12550E-01 | - | - | 0.79967E-01 | 0.20929E-01 |
| 10 | -0.99708E-01 | 0.24007E+00 | 0.10135E+01 | 0.12081E-01 | - | - | 0.75222E-01 | 0.13449E-01 |
| 11 | -0.99708E-01 | 0.30020E+00 | 0.10255E+01 | 0.12997E-01 | - | - | 0.62621E-01 | 0.14529E-01 |
| 12 | -0.10044E+00 | 0.30020E+00 | 0.10270E+01 | 0.12870E-01 | - | - | 0.66974E-01 | 0.15109E-01 |
| 13 | -0.14070E-01 | 0.30020E+00 | 0.10395E+01 | 0.10807E-01 | - | - | 0.80892E-01 | 0.14518E-01 |
| 14 | 0.71690E-01 | 0.30020E+00 | 0.10550E+01 | 0.10870E-01 | - | - | 0.77461E-01 | 0.19762E-01 |
| 15 | 0.15721E+00 | 0.30020E+00 | 0.10781E+01 | 0.84036E-02 | - | - | 0.81098E-01 | 0.14866E-01 |
| 16 | 0.24297E+00 | 0.30020E+00 | 0.10923E+01 | 0.11024E-01 | - | - | 0.65979E-01 | 0.14906E-01 |
| 17 | 0.32873E+00 | 0.30020E+00 | 0.10910E+01 | 0.77996E-02 | - | - | 0.39207E-01 | 0.13446E-01 |
| 18 | 0.41437E+00 | 0.30020E+00 | 0.10940E+01 | 0.12859E-01 | - | - | 0.20332E-01 | 0.14941E-01 |
| 19 | 0.50013E+00 | 0.30020E+00 | 0.10833E+01 | 0.11854E-01 | - | - | 0.10125E-01 | 0.12675E-01 |
| 20 | 0.58588E+00 | 0.30020E+00 | 0.10754E+01 | 0.11719E-01 | - | - | -0.17903E-02 | 0.14447E-01 |
| 21 | 0.67152E+00 | 0.30020E+00 | 0.10669E+01 | 0.10318E-01 | - | - | -0.82934E-02 | 0.13442E-01 |
| 22 | 0.75728E+00 | 0.30020E+00 | 0.10562E+01 | 0.10543E-01 | - | - | -0.87838E-02 | 0.12748E-01 |
| 23 | 0.84292E+00 | 0.30020E+00 | 0.10440E+01 | 0.11515E-01 | - | - | -0.97977E-02 | 0.20010E-01 |
| 24 | 0.92868E+00 | 0.30020E+00 | 0.10359E+01 | 0.10857E-01 | - | - | -0.64190E-02 | 0.12445E-01 |
| 25 | 0.10144E+01 | 0.30020E+00 | 0.10278E+01 | 0.11970E-01 | - | - | -0.70072E-03 | 0.15496E-01 |
| 26 | 0.11001E+01 | 0.30020E+00 | 0.10255E+01 | 0.12929E-01 | - | - | 0.82311E-02 | 0.15260E-01 |
| 27 | 0.11001E+01 | 0.29983E+00 | 0.10237E+01 | 0.10860E-01 | - | - | 0.75753E-02 | 0.12432E-01 |
| 28 | 0.11001E+01 | 0.23982E+00 | 0.10183E+01 | 0.11665E-01 | - | - | 0.70693E-02 | 0.16114E-01 |
| 29 | 0.11001E+01 | 0.17994E+00 | 0.10120E+01 | 0.14391E-01 | - | - | 0.75749E-02 | 0.10819E-01 |
| 30 | 0.11001E+01 | 0.11993E+00 | 0.10031E+01 | 0.11424E-01 | - | - | 0.17704E-01 | 0.14629E-01 |
| 31 | 0.11001E+01 | 0.59922E-01 | 0.99149E+00 | 0.13017E-01 | - | - | 0.23850E-01 | 0.14490E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.90792E+00 | 0.64498E-01 | - | - | 0.40059E-01 | 0.46871E-01 |
| 33 | 0.11001E+01 | -0.60215E-01 | 0.98896E+00 | 0.11828E-01 | - | - | 0.65255E-01 | 0.93976E-02 |
| 34 | 0.11001E+01 | -0.12010E+00 | 0.99939E+00 | 0.93569E-02 | - | - | 0.66600E-01 | 0.11006E-01 |
| 35 | 0.11001E+01 | -0.18023E+00 | 0.10057E+01 | 0.13058E-01 | - | - | 0.62011E-01 | 0.11587E-01 |
| 36 | 0.11001E+01 | -0.24012E+00 | 0.10095E+01 | 0.95407E-02 | - | - | 0.60536E-01 | 0.11913E-01 |
| 37 | 0.11001E+01 | -0.30024E+00 | 0.10136E+01 | 0.91040E-02 | - | - | 0.54776E-01 | 0.12821E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.30024E+00 | 0.10144E+01 | 0.97419E-02 | - | - | 0.53362E-01 | 0.11278E-01 |
| 39 | 0.10141E+01 | -0.30024E+00 | 0.10129E+01 | 0.80821E-02 | - | - | 0.59249E-01 | 0.12047E-01 |
| 40 | 0.92832E+00 | -0.30024E+00 | 0.10192E+01 | 0.98467E-02 | - | - | 0.71800E-01 | 0.10882E-01 |
| 41 | 0.84256E+00 | -0.30024E+00 | 0.10291E+01 | 0.12076E-01 | - | - | 0.69650E-01 | 0.12154E-01 |
| 42 | 0.75692E+00 | -0.30024E+00 | 0.10381E+01 | 0.11838E-01 | - | - | 0.70507E-01 | 0.12928E-01 |
| 43 | 0.67116E+00 | -0.30024E+00 | 0.10461E+01 | 0.10140E-01 | - | - | 0.71529E-01 | 0.98568E-02 |
| 44 | 0.58552E+00 | -0.30024E+00 | 0.10561E+01 | 0.92702E-02 | - | - | 0.65637E-01 | 0.10838E-01 |
| 45 | 0.49976E+00 | -0.30024E+00 | 0.10628E+01 | 0.99301E-02 | - | - | 0.54027E-01 | 0.11422E-01 |
| 46 | 0.41400E+00 | -0.30024E+00 | 0.10732E+01 | 0.10212E-01 | - | - | 0.37214E-01 | 0.11801E-01 |
| 47 | 0.32836E+00 | -0.30024E+00 | 0.10784E+01 | 0.10675E-01 | - | - | 0.16755E-01 | 0.12868E-01 |
| 48 | 0.24248E+00 | -0.30024E+00 | 0.10750E+01 | 0.99567E-02 | - | - | 0.41011E-02 | 0.13079E-01 |
| 49 | 0.15684E+00 | -0.30024E+00 | 0.10609E+01 | 0.12700E-01 | - | - | -0.10243E-01 | 0.15593E-01 |
| 50 | 0.71083E-01 | -0.30024E+00 | 0.10524E+01 | 0.10685E-01 | - | - | -0.29636E-01 | 0.16820E-01 |
| 51 | -0.14434E-01 | -0.30024E+00 | 0.10204E+01 | 0.10518E-01 | - | - | -0.19167E-01 | 0.16126E-01 |
| 52 | -0.10007E+00 | -0.30024E+00 | 0.10119E+01 | 0.10867E-01 | - | - | -0.22701E-01 | 0.18414E-01 |

I1 = 0.0356 I2 = 2.5481 I3 = -0.0459 I4 = -2.5084

Lift = 0.0294

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 9 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.97544E+00 | 0.14736E-01 | - | - | -0.18030E-01 | 0.15884E-01 |
| 2 | -0.10007E+00 | -0.15970E+00 | 0.96308E+00 | 0.14293E-01 | - | - | -0.23099E-01 | 0.17387E-01 |
| 3 | -0.10007E+00 | -0.11974E+00 | 0.94495E+00 | 0.15437E-01 | - | - | -0.18174E-02 | 0.19795E-01 |
| 4 | -0.10007E+00 | -0.79772E-01 | 0.93091E+00 | 0.18050E-01 | - | - | 0.20391E-01 | 0.20126E-01 |
| 5 | -0.10007E+00 | -0.39928E-01 | 0.92583E+00 | 0.17988E-01 | - | - | 0.39000E-01 | 0.16672E-01 |
| 6 | -0.10007E+00 | 0.15778E-03 | 0.93625E+00 | 0.17433E-01 | - | - | 0.67563E-01 | 0.17804E-01 |
| 7 | -0.10007E+00 | 0.40123E-01 | 0.95923E+00 | 0.14862E-01 | - | - | 0.93157E-01 | 0.21239E-01 |
| 8 | -0.10007E+00 | 0.80087E-01 | 0.98020E+00 | 0.15014E-01 | - | - | 0.95691E-01 | 0.17566E-01 |
| 9 | -0.10007E+00 | 0.12029E+00 | 0.10012E+01 | 0.13931E-01 | - | - | 0.99560E-01 | 0.16318E-01 |
| 10 | -0.10007E+00 | 0.16014E+00 | 0.10154E+01 | 0.14888E-01 | - | - | 0.90264E-01 | 0.18241E-01 |
| 11 | -0.10007E+00 | 0.20022E+00 | 0.10255E+01 | 0.13178E-01 | - | - | 0.83279E-01 | 0.15941E-01 |
| 12 | -0.99344E-01 | 0.20022E+00 | 0.10263E+01 | 0.11987E-01 | - | - | 0.82346E-01 | 0.14777E-01 |
| 13 | 0.20307E-01 | 0.20022E+00 | 0.10605E+01 | 0.15190E-01 | - | - | 0.10900E+00 | 0.13701E-01 |
| 14 | 0.14008E+00 | 0.20022E+00 | 0.11155E+01 | 0.14676E-01 | - | - | 0.97018E-01 | 0.10944E-01 |
| 15 | 0.26022E+00 | 0.20022E+00 | 0.11532E+01 | 0.12897E-01 | - | - | 0.63517E-01 | 0.12676E-01 |
| 16 | 0.38011E+00 | 0.20022E+00 | 0.11401E+01 | 0.12390E-01 | - | - | 0.11113E-01 | 0.11227E-01 |
| 17 | 0.50013E+00 | 0.20022E+00 | 0.11235E+01 | 0.11239E-01 | - | - | -0.20575E-01 | 0.92022E-02 |
| 18 | 0.62026E+00 | 0.20022E+00 | 0.10977E+01 | 0.10882E-01 | - | - | -0.40199E-01 | 0.98378E-02 |
| 19 | 0.74040E+00 | 0.20022E+00 | 0.10724E+01 | 0.12192E-01 | - | - | -0.48539E-01 | 0.10057E-01 |
| 20 | 0.86029E+00 | 0.20022E+00 | 0.10476E+01 | 0.11580E-01 | - | - | -0.44433E-01 | 0.89796E-02 |
| 21 | 0.98019E+00 | 0.20022E+00 | 0.10283E+01 | 0.11651E-01 | - | - | -0.32836E-01 | 0.91148E-02 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10216E+01 | 0.11453E-01 | - | - | -0.17918E-01 | 0.10224E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10236E+01 | 0.10934E-01 | - | - | -0.16885E-01 | 0.81823E-02 |
| 24 | 0.11002E+01 | 0.15977E+00 | 0.10191E+01 | 0.14564E-01 | - | - | -0.14820E-01 | 0.10919E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10101E+01 | 0.12555E-01 | - | - | -0.82632E-02 | 0.87345E-02 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.10037E+01 | 0.11942E-01 | - | - | 0.46312E-02 | 0.68236E-02 |
| 27 | 0.11002E+01 | 0.39880E-01 | 0.99221E+00 | 0.13779E-01 | - | - | 0.24227E-01 | 0.75104E-02 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.89741E+00 | 0.54743E-01 | - | - | 0.97208E-01 | 0.47593E-01 |
| 29 | 0.11002E+01 | -0.40171E-01 | 0.99218E+00 | 0.13053E-01 | - | - | 0.12251E+00 | 0.12837E-01 |
| 30 | 0.11002E+01 | -0.80136E-01 | 0.99947E+00 | 0.13853E-01 | - | - | 0.13656E+00 | 0.13188E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.10019E+01 | 0.14328E-01 | - | - | 0.11812E+00 | 0.96083E-02 |
| 32 | 0.11002E+01 | -0.16007E+00 | 0.10060E+01 | 0.12072E-01 | - | - | 0.93727E-01 | 0.71408E-02 |
| 33 | 0.11002E+01 | -0.20027E+00 | 0.10102E+01 | 0.13388E-01 | - | - | 0.70964E-01 | 0.95613E-02 |
| 34 | 0.10997E+01 | -0.20027E+00 | 0.10103E+01 | 0.13923E-01 | - | - | 0.71036E-01 | 0.83059E-02 |
| 35 | 0.97958E+00 | -0.20027E+00 | 0.10080E+01 | 0.99667E-02 | - | - | 0.39292E-01 | 0.53337E-01 |
| 36 | 0.85993E+00 | -0.20027E+00 | 0.10205E+01 | 0.12812E-01 | - | - | 0.89997E-01 | 0.85142E-02 |
| 37 | 0.73991E+00 | -0.20027E+00 | 0.10408E+01 | 0.10361E-01 | - | - | 0.91270E-01 | 0.71566E-02 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20027E+00 | 0.10578E+01 | 0.12468E-01 | - | - | 0.77446E-01 | 0.92819E-02 |
| 39 | 0.49988E+00 | -0.20027E+00 | 0.10729E+01 | 0.11413E-01 | - | - | 0.55059E-01 | 0.34601E-01 |
| 40 | 0.37987E+00 | -0.20027E+00 | 0.10775E+01 | 0.95353E-02 | - | - | 0.27396E-01 | 0.38476E-01 |
| 41 | 0.25973E+00 | -0.20027E+00 | 0.10794E+01 | 0.13726E-01 | - | - | 0.21041E-03 | 0.21046E-01 |
| 42 | 0.13984E+00 | -0.20027E+00 | 0.10531E+01 | 0.14918E-01 | - | - | -0.39392E-01 | 0.11493E-01 |
| 43 | 0.19700E-01 | -0.20027E+00 | 0.10009E+01 | 0.19107E-01 | - | - | -0.51313E-01 | 0.15518E-01 |
| 44 | -0.10032E+00 | -0.20027E+00 | 0.97856E+00 | 0.15072E-01 | - | - | -0.22057E-01 | 0.18197E-01 |

I1 = 0.0408 I2 = 2.6081 I3 = -0.0490 I4 = -2.4972

Lift = 0.1027

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 8 at y/c = -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97499E+00 | 0.12356E-01 | - | - | -0.16938E-01 | 0.23911E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95956E+00 | 0.13203E-01 | - | - | -0.18892E-01 | 0.21846E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94100E+00 | 0.12635E-01 | - | - | -0.63990E-02 | 0.23636E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92446E+00 | 0.14300E-01 | - | - | 0.14843E-01 | 0.24340E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91931E+00 | 0.15212E-01 | - | - | 0.47865E-01 | 0.23043E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93016E+00 | 0.13432E-01 | - | - | 0.78283E-01 | 0.22991E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95502E+00 | 0.12868E-01 | - | - | 0.10138E+00 | 0.24968E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.98136E+00 | 0.10896E-01 | - | - | 0.10569E+00 | 0.20720E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10034E+01 | 0.10948E-01 | - | - | 0.10704E+00 | 0.18833E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10205E+01 | 0.12430E-01 | - | - | 0.97800E-01 | 0.20474E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10295E+01 | 0.10604E-01 | - | - | 0.89067E-01 | 0.18097E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10317E+01 | 0.13332E-01 | - | - | 0.91209E-01 | 0.19437E-01 |
| 13 | 0.20064E-01 | 0.20010E+00 | 0.10683E+01 | 0.11035E-01 | - | - | 0.11192E+00 | 0.18177E-01 |
| 14 | 0.14020E+00 | 0.20010E+00 | 0.11246E+01 | 0.11263E-01 | - | - | 0.93267E-01 | 0.14051E-01 |
| 15 | 0.26009E+00 | 0.20010E+00 | 0.11546E+01 | 0.11196E-01 | - | - | 0.48285E-01 | 0.16597E-01 |
| 16 | 0.38023E+00 | 0.20010E+00 | 0.11421E+01 | 0.10178E-01 | - | - | 0.19059E-02 | 0.20348E-01 |
| 17 | 0.50013E+00 | 0.20010E+00 | 0.11185E+01 | 0.74057E-02 | - | - | -0.26459E-01 | 0.21467E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10952E+01 | 0.13455E-01 | - | - | -0.48563E-01 | 0.14476E-01 |
| 19 | 0.74016E+00 | 0.20010E+00 | 0.10692E+01 | 0.10545E-01 | - | - | -0.53957E-01 | 0.14443E-01 |
| 20 | 0.86017E+00 | 0.20010E+00 | 0.10463E+01 | 0.11129E-01 | - | - | -0.44319E-01 | 0.24080E-01 |
| 21 | 0.98006E+00 | 0.20010E+00 | 0.10304E+01 | 0.10432E-01 | - | - | -0.34465E-01 | 0.22711E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10240E+01 | 0.11257E-01 | - | - | -0.24201E-01 | 0.15506E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10231E+01 | 0.10948E-01 | - | - | -0.21598E-01 | 0.14998E-01 |
| 24 | 0.11001E+01 | 0.15989E+00 | 0.10182E+01 | 0.11878E-01 | - | - | -0.21574E-01 | 0.14376E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10115E+01 | 0.11127E-01 | - | - | -0.16500E-01 | 0.13933E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10066E+01 | 0.11284E-01 | - | - | -0.38728E-02 | 0.12777E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.99745E+00 | 0.11282E-01 | - | - | 0.20725E-01 | 0.14912E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.98406E+00 | 0.28812E-01 | - | - | 0.10174E+00 | 0.26798E-01 |
| 29 | 0.11001E+01 | -0.40171E-01 | 0.99786E+00 | 0.11931E-01 | - | - | 0.23254E+00 | 0.28697E-01 |
| 30 | 0.11001E+01 | -0.80136E-01 | 0.99670E+00 | 0.18016E-01 | - | - | 0.25964E+00 | 0.31908E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.10029E+01 | 0.12323E-01 | - | - | 0.13358E+00 | 0.16139E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10069E+01 | 0.10146E-01 | - | - | 0.83725E-01 | 0.12994E-01 |
| 33 | 0.11001E+01 | -0.20027E+00 | 0.10093E+01 | 0.95629E-02 | - | - | 0.61550E-01 | 0.15266E-01 |
| 34 | 0.10996E+01 | -0.20027E+00 | 0.10074E+01 | 0.81303E-02 | - | - | 0.58902E-01 | 0.13049E-01 |
| 35 | 0.97982E+00 | -0.20027E+00 | 0.10079E+01 | 0.10416E-01 | - | - | 0.74682E-01 | 0.27986E-01 |
| 36 | 0.85993E+00 | -0.20027E+00 | 0.10173E+01 | 0.78772E-02 | - | - | 0.87657E-01 | 0.32705E-01 |
| 37 | 0.73979E+00 | -0.20027E+00 | 0.10350E+01 | 0.81295E-02 | - | - | 0.96010E-01 | 0.46886E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20027E+00 | 0.10576E+01 | 0.96347E-02 | - | - | 0.94778E-01 | 0.41951E-01 |
| 39 | 0.49988E+00 | -0.20027E+00 | 0.10679E+01 | 0.11029E-01 | - | - | 0.95135E-01 | 0.55225E-01 |
| 40 | 0.37975E+00 | -0.20027E+00 | 0.10766E+01 | 0.89474E-02 | - | - | 0.71966E-01 | 0.55549E-01 |
| 41 | 0.25985E+00 | -0.20027E+00 | 0.10705E+01 | 0.14118E-01 | - | - | 0.45830E-02 | 0.37926E-01 |
| 42 | 0.13971E+00 | -0.20027E+00 | 0.10468E+01 | 0.12548E-01 | - | - | -0.40575E-01 | 0.19532E-01 |
| 43 | 0.19821E-01 | -0.20027E+00 | 0.10008E+01 | 0.15853E-01 | - | - | -0.48280E-01 | 0.26093E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.97805E+00 | 0.12843E-01 | - | - | -0.33527E-01 | 0.23435E-01 |

I1 = 0.0449 I2 = 2.6109 I3 = -0.0656 I4 = -2.4889

Lift = 0.1013

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 7 at y/c = -0.021

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97863E+00 | 0.18757E-01 | - | - | -0.12757E-01 | 0.22170E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95558E+00 | 0.95709E-02 | - | - | -0.11615E-01 | 0.17749E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94164E+00 | 0.10890E-01 | - | - | -0.42531E-02 | 0.21744E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92521E+00 | 0.11207E-01 | - | - | 0.14239E-01 | 0.25310E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91961E+00 | 0.11345E-01 | - | - | 0.49477E-01 | 0.24314E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93250E+00 | 0.10587E-01 | - | - | 0.81355E-01 | 0.21805E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95768E+00 | 0.10416E-01 | - | - | 0.10687E+00 | 0.21895E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.98138E+00 | 0.10085E-01 | - | - | 0.10388E+00 | 0.19641E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10011E+01 | 0.95805E-02 | - | - | 0.10749E+00 | 0.20805E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10198E+01 | 0.10167E-01 | - | - | 0.99372E-01 | 0.19259E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10311E+01 | 0.10325E-01 | - | - | 0.93547E-01 | 0.20476E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10315E+01 | 0.11269E-01 | - | - | 0.93169E-01 | 0.20524E-01 |
| 13 | 0.20064E-01 | 0.20010E+00 | 0.10700E+01 | 0.83553E-02 | - | - | 0.10964E+00 | 0.13626E-01 |
| 14 | 0.14020E+00 | 0.20010E+00 | 0.11253E+01 | 0.81807E-02 | - | - | 0.90669E-01 | 0.15356E-01 |
| 15 | 0.26022E+00 | 0.20010E+00 | 0.11514E+01 | 0.94810E-02 | - | - | 0.42178E-01 | 0.18459E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.11395E+01 | 0.80182E-02 | - | - | -0.28055E-02 | 0.18259E-01 |
| 17 | 0.50025E+00 | 0.20010E+00 | 0.11196E+01 | 0.89591E-02 | - | - | -0.31549E-01 | 0.18862E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10936E+01 | 0.72077E-02 | - | - | -0.47773E-01 | 0.23806E-01 |
| 19 | 0.74016E+00 | 0.20010E+00 | 0.10685E+01 | 0.80908E-02 | - | - | -0.49815E-01 | 0.15992E-01 |
| 20 | 0.86029E+00 | 0.20010E+00 | 0.10458E+01 | 0.87062E-02 | - | - | -0.53854E-01 | 0.15729E-01 |
| 21 | 0.98019E+00 | 0.20010E+00 | 0.10294E+01 | 0.84107E-02 | - | - | -0.41630E-01 | 0.15726E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10218E+01 | 0.77812E-02 | - | - | -0.35367E-01 | 0.16394E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10201E+01 | 0.80312E-02 | - | - | -0.30545E-01 | 0.16799E-01 |
| 24 | 0.11002E+01 | 0.15989E+00 | 0.10167E+01 | 0.84262E-02 | - | - | -0.29460E-01 | 0.11281E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10110E+01 | 0.80455E-02 | - | - | -0.21906E-01 | 0.13658E-01 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.10056E+01 | 0.90516E-02 | - | - | -0.14402E-01 | 0.17056E-01 |
| 27 | 0.11002E+01 | 0.39880E-01 | 0.99885E+00 | 0.98479E-02 | - | - | 0.70135E-02 | 0.14140E-01 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.98111E+00 | 0.29604E-01 | - | - | 0.90246E-01 | 0.33020E-01 |
| 29 | 0.11002E+01 | -0.40171E-01 | 0.99428E+00 | 0.18355E-01 | - | - | 0.25268E+00 | 0.32409E-01 |
| 30 | 0.11002E+01 | -0.80136E-01 | 0.94957E+00 | 0.66064E-01 | - | - | 0.19362E+00 | 0.64220E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.10023E+01 | 0.11467E-01 | - | - | 0.10958E+00 | 0.27305E-01 |
| 32 | 0.11002E+01 | -0.16007E+00 | 0.10049E+01 | 0.78556E-02 | - | - | 0.71256E-01 | 0.17570E-01 |
| 33 | 0.11002E+01 | -0.20015E+00 | 0.10075E+01 | 0.80058E-02 | - | - | 0.53983E-01 | 0.16535E-01 |
| 34 | 0.10997E+01 | -0.20015E+00 | 0.10096E+01 | 0.99785E-02 | - | - | 0.55244E-01 | 0.19053E-01 |
| 35 | 0.97970E+00 | -0.20015E+00 | 0.10059E+01 | 0.10493E-01 | - | - | 0.48792E-01 | 0.46496E-01 |
| 36 | 0.85993E+00 | -0.20015E+00 | 0.10128E+01 | 0.76942E-02 | - | - | 0.72060E-01 | 0.19730E-01 |
| 37 | 0.73991E+00 | -0.20015E+00 | 0.10353E+01 | 0.66728E-02 | - | - | 0.80989E-01 | 0.22749E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20015E+00 | 0.10559E+01 | 0.74830E-02 | - | - | 0.77148E-01 | 0.29203E-01 |
| 39 | 0.49988E+00 | -0.20015E+00 | 0.10659E+01 | 0.92890E-02 | - | - | 0.67395E-01 | 0.47831E-01 |
| 40 | 0.37987E+00 | -0.20015E+00 | 0.10771E+01 | 0.93147E-02 | - | - | 0.56035E-01 | 0.55376E-01 |
| 41 | 0.25961E+00 | -0.20015E+00 | 0.10755E+01 | 0.73879E-02 | - | - | -0.17117E-01 | 0.25393E-01 |
| 42 | 0.13984E+00 | -0.20015E+00 | 0.10422E+01 | 0.14394E-01 | - | - | -0.46433E-01 | 0.19296E-01 |
| 43 | 0.19821E-01 | -0.20015E+00 | 0.99580E+00 | 0.14692E-01 | - | - | -0.57570E-01 | 0.22133E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.97486E+00 | 0.11599E-01 | - | - | -0.22931E-01 | 0.21063E-01 |

I1 = 0.0466 I2 = 2.6094 I3 = -0.0524 I4 = -2.4859

Lift = 0.1178

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 6 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97364E+00 | 0.14186E-01 | - | - | -0.13988E-01 | 0.19050E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95909E+00 | 0.15282E-01 | - | - | -0.11777E-01 | 0.22488E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94387E+00 | 0.18009E-01 | - | - | -0.56714E-04 | 0.21798E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92810E+00 | 0.15877E-01 | - | - | 0.20266E-01 | 0.24927E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.92355E+00 | 0.20849E-01 | - | - | 0.50734E-01 | 0.12665E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93332E+00 | 0.16199E-01 | - | - | 0.81413E-01 | 0.24263E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95740E+00 | 0.12984E-01 | - | - | 0.10138E+00 | 0.24049E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.98279E+00 | 0.12662E-01 | - | - | 0.10650E+00 | 0.19982E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10037E+01 | 0.13842E-01 | - | - | 0.10683E+00 | 0.20151E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10220E+01 | 0.14408E-01 | - | - | 0.99543E-01 | 0.20493E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10342E+01 | 0.11883E-01 | - | - | 0.96958E-01 | 0.19622E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10314E+01 | 0.12115E-01 | - | - | 0.87163E-01 | 0.19495E-01 |
| 13 | 0.20064E-01 | 0.20010E+00 | 0.10765E+01 | 0.13558E-01 | - | - | 0.11218E+00 | 0.17415E-01 |
| 14 | 0.14008E+00 | 0.20010E+00 | 0.11338E+01 | 0.13107E-01 | - | - | 0.90924E-01 | 0.17840E-01 |
| 15 | 0.26022E+00 | 0.20010E+00 | 0.11540E+01 | 0.11180E-01 | - | - | 0.34892E-01 | 0.18568E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.11431E+01 | 0.10870E-01 | - | - | -0.15822E-01 | 0.14100E-01 |
| 17 | 0.50013E+00 | 0.20010E+00 | 0.11206E+01 | 0.10830E-01 | - | - | -0.43344E-01 | 0.13535E-01 |
| 18 | 0.62026E+00 | 0.20010E+00 | 0.10958E+01 | 0.10102E-01 | - | - | -0.57415E-01 | 0.18705E-01 |
| 19 | 0.74016E+00 | 0.20010E+00 | 0.10701E+01 | 0.99393E-02 | - | - | -0.62025E-01 | 0.18892E-01 |
| 20 | 0.86017E+00 | 0.20010E+00 | 0.10444E+01 | 0.11285E-01 | - | - | -0.61811E-01 | 0.17521E-01 |
| 21 | 0.98006E+00 | 0.20010E+00 | 0.10319E+01 | 0.14546E-01 | - | - | -0.46055E-01 | 0.17293E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10220E+01 | 0.98657E-02 | - | - | -0.36008E-01 | 0.15026E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10244E+01 | 0.12633E-01 | - | - | -0.37040E-01 | 0.19315E-01 |
| 24 | 0.11001E+01 | 0.15989E+00 | 0.10203E+01 | 0.12057E-01 | - | - | -0.31685E-01 | 0.15558E-01 |
| 25 | 0.11001E+01 | 0.11993E+00 | 0.10162E+01 | 0.11791E-01 | - | - | -0.34089E-01 | 0.17459E-01 |
| 26 | 0.11001E+01 | 0.79844E-01 | 0.10085E+01 | 0.11869E-01 | - | - | -0.29600E-01 | 0.16909E-01 |
| 27 | 0.11001E+01 | 0.39880E-01 | 0.10043E+01 | 0.12357E-01 | - | - | -0.17335E-01 | 0.22321E-01 |
| 28 | 0.11001E+01 | -0.85220E-04 | 0.97631E+00 | 0.36806E-01 | - | - | 0.49666E-01 | 0.43296E-01 |
| 29 | 0.11001E+01 | -0.40171E-01 | 0.88857E+00 | 0.65114E-01 | - | - | 0.15552E+00 | 0.48365E-01 |
| 30 | 0.11001E+01 | -0.80136E-01 | 0.85008E+00 | 0.43466E-01 | - | - | 0.10787E+00 | 0.51563E-01 |
| 31 | 0.11001E+01 | -0.12010E+00 | 0.97543E+00 | 0.38716E-01 | - | - | 0.53732E-01 | 0.32111E-01 |
| 32 | 0.11001E+01 | -0.16007E+00 | 0.10084E+01 | 0.12171E-01 | - | - | 0.44342E-01 | 0.16547E-01 |
| 33 | 0.11001E+01 | -0.20015E+00 | 0.10087E+01 | 0.12835E-01 | - | - | 0.36058E-01 | 0.17350E-01 |
| 34 | 0.10996E+01 | -0.20015E+00 | 0.10063E+01 | 0.10745E-01 | - | - | 0.34793E-01 | 0.20850E-01 |
| 35 | 0.97982E+00 | -0.20015E+00 | 0.10058E+01 | 0.11482E-01 | - | - | 0.58246E-01 | 0.38931E-01 |
| 36 | 0.85993E+00 | -0.20015E+00 | 0.10151E+01 | 0.12804E-01 | - | - | 0.63314E-01 | 0.20778E-01 |
| 37 | 0.73979E+00 | -0.20015E+00 | 0.10367E+01 | 0.14106E-01 | - | - | 0.66894E-01 | 0.17796E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20015E+00 | 0.10558E+01 | 0.10780E-01 | - | - | 0.60493E-01 | 0.23214E-01 |
| 39 | 0.49988E+00 | -0.20015E+00 | 0.10672E+01 | 0.11204E-01 | - | - | 0.41351E-01 | 0.28039E-01 |
| 40 | 0.37962E+00 | -0.20015E+00 | 0.10707E+01 | 0.11843E-01 | - | - | 0.17338E-01 | 0.53324E-01 |
| 41 | 0.25985E+00 | -0.20015E+00 | 0.10640E+01 | 0.11738E-01 | - | - | -0.26302E-01 | 0.15422E-01 |
| 42 | 0.13971E+00 | -0.20015E+00 | 0.10325E+01 | 0.13274E-01 | - | - | -0.49445E-01 | 0.15756E-01 |
| 43 | 0.19821E-01 | -0.20015E+00 | 0.99121E+00 | 0.18985E-01 | - | - | -0.51858E-01 | 0.20024E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.97232E+00 | 0.13769E-01 | - | - | -0.16565E-01 | 0.20503E-01 |

I1 = 0.0476 I2 = 2.6160 I3 = -0.0234 I4 = -2.4789

Lift = 0.1613

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 5 at y/c = 0.054

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.97128E+00 | 0.126? | - | - | -0.13742E-01 | 0.25523E-01 |
| 2 | -0.10007E+00 | -0.15982E+00 | 0.95841E+00 | 0.1573?E-01 | - | - | -0.94202E-02 | 0.22821E-01 |
| 3 | -0.10007E+00 | -0.11986E+00 | 0.94215E+00 | 0.14838E-01 | - | - | 0.56269E-02 | 0.29290E-01 |
| 4 | -0.10007E+00 | -0.79893E-01 | 0.92631E+00 | 0.13262E-01 | - | - | 0.18321E-01 | 0.25298E-01 |
| 5 | -0.10007E+00 | -0.39928E-01 | 0.91972E+00 | 0.14661E-01 | - | - | 0.57199E-01 | 0.24895E-01 |
| 6 | -0.10007E+00 | 0.15778E-03 | 0.93169E+00 | 0.15150E-01 | - | - | 0.86162E-01 | 0.28234E-01 |
| 7 | -0.10007E+00 | 0.40123E-01 | 0.95772E+00 | 0.12695E-01 | - | - | 0.11389E+00 | 0.30733E-01 |
| 8 | -0.10007E+00 | 0.80087E-01 | 0.98501E+00 | 0.12549E-01 | - | - | 0.11288E+00 | 0.23419E-01 |
| 9 | -0.10007E+00 | 0.12017E+00 | 0.10407E+01 | 0.23254E+00 | - | - | 0.11595E+00 | 0.36787E-01 |
| 10 | -0.10007E+00 | 0.16014E+00 | 0.10263E+01 | 0.12013E-01 | - | - | 0.10339E+00 | 0.21377E-01 |
| 11 | -0.10007E+00 | 0.20010E+00 | 0.10394E+01 | 0.12294E-01 | - | - | 0.99359E-01 | 0.25838E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10390E+01 | 0.12085E-01 | - | - | 0.98069E-01 | 0.25171E-01 |
| 13 | 0.20307E-01 | 0.20010E+00 | 0.10854E+01 | 0.10984E-01 | - | - | 0.11439E+00 | 0.20499E-01 |
| 14 | 0.14008E+00 | 0.20010E+00 | 0.11413E+01 | 0.12367E-01 | - | - | 0.85735E-01 | 0.25966E-01 |
| 15 | 0.26022E+00 | 0.20010E+00 | 0.11618E+01 | 0.11355E-01 | - | - | 0.25894E-01 | 0.21583E-01 |
| 16 | 0.38011E+00 | 0.20010E+00 | 0.11492E+01 | 0.83412E-02 | - | - | -0.62726E-02 | 0.39367E-01 |
| 17 | 0.50013E+00 | 0.20010E+00 | 0.11256E+01 | 0.11412E-01 | - | - | -0.27577E-01 | 0.46195E-01 |
| 18 | 0.62014E+00 | 0.20010E+00 | 0.10985E+01 | 0.11578E-01 | - | - | -0.60040E-01 | 0.34289E-01 |
| 19 | 0.74028E+00 | 0.20010E+00 | 0.10716E+01 | 0.12249E-01 | - | - | -0.69198E-01 | 0.28847E-01 |
| 20 | 0.86029E+00 | 0.20010E+00 | 0.10480E+01 | 0.71489E-02 | - | - | -0.54599E-01 | 0.34270E-01 |
| 21 | 0.98019E+00 | 0.20010E+00 | 0.10323E+01 | 0.10847E-01 | - | - | -0.44565E-01 | 0.42877E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10263E+01 | 0.10538E-01 | - | - | -0.49378E-01 | 0.24553E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10271E+01 | 0.11322E-01 | - | - | -0.44661E-01 | 0.20413E-01 |
| 24 | 0.11002E+01 | 0.15989E+00 | 0.10220E+01 | 0.11784E-01 | - | - | -0.49606E-01 | 0.15200E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10171E+01 | 0.93046E-02 | - | - | -0.54662E-01 | 0.16289E-01 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.10145E+01 | 0.11872E-01 | - | - | -0.62876E-01 | 0.15112E-01 |
| 27 | 0.11002E+01 | 0.39880E-01 | 0.10096E+01 | 0.12126E-01 | - | - | -0.80938E-01 | 0.20901E-01 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.95557E+00 | 0.44564E-01 | - | - | -0.14692E+00 | 0.50136E-01 |
| 29 | 0.11002E+01 | -0.40171E-01 | 0.10064E+01 | 0.34118E-01 | - | - | -0.17576E+00 | 0.49529E-01 |
| 30 | 0.11002E+01 | -0.80136E-01 | 0.90477E+00 | 0.58761E-01 | - | - | -0.18319E+00 | 0.67802E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.86355E+00 | 0.58091E-01 | - | - | -0.37530E-01 | 0.53554E-01 |
| 32 | 0.11002E+01 | -0.16007E+00 | 0.99920E+00 | 0.16654E-01 | - | - | -0.14219E-01 | 0.17102E-01 |
| 33 | 0.11002E+01 | -0.20027E+00 | 0.10059E+01 | 0.10505E-01 | - | - | -0.27868E-03 | 0.16698E-01 |
| 34 | 0.10997E+01 | -0.20027E+00 | 0.10061E+01 | 0.90180E-02 | - | - | -0.17986E-04 | 0.15126E-01 |
| 35 | 0.97970E+00 | -0.20027E+00 | 0.10009E+01 | 0.11592E-01 | - | - | 0.22681E-01 | 0.40406E-01 |
| 36 | 0.85981E+00 | -0.20027E+00 | 0.10109E+01 | 0.72741E-02 | - | - | 0.34721E-01 | 0.34367E-01 |
| 37 | 0.73991E+00 | -0.20027E+00 | 0.10341E+01 | 0.85481E-02 | - | - | 0.39141E-01 | 0.24081E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61990E+00 | -0.20027E+00 | 0.10541E+01 | 0.90777E-02 | - | - | 0.32136E-01 | 0.29571E-01 |
| 39 | 0.49376E+00 | -0.20027E+00 | 0.10626E+01 | 0.87722E-02 | - | - | 0.37684E-01 | 0.44174E-01 |
| 40 | 0.37987E+00 | -0.20027E+00 | 0.10657E+01 | 0.71561E-02 | - | - | 0.37338E-01 | 0.56137E-01 |
| 41 | 0.25985E+00 | -0.20027E+00 | 0.10526E+01 | 0.77831E-02 | - | - | -0.30944E-01 | 0.34860E-01 |
| 42 | 0.13971E+00 | -0.20027E+00 | 0.10214E+01 | 0.12405E-01 | - | - | -0.62591E-01 | 0.17710E-01 |
| 43 | 0.19821E-01 | -0.20027E+00 | 0.98141E+00 | 0.13151E-01 | - | - | -0.46729E-01 | 0.29283E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.97148E+00 | 0.11787E-01 | - | - | -0.10535E-01 | 0.28431E-01 |

I1 = 0.0511 I2 = 2.6277 I3 = 0.0685 I4 = -2.4647

Lift = 0.2826

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 4 at y/c = 0.104

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20015E+00 | 0.96497E+00 | 0.14013E-01 | - | - | -0.72309E-02 | 0.12862E-01 |
| 2 | -0.10044E+00 | -0.15982E+00 | 0.95633E+00 | 0.18536E-01 | - | - | 0.60723E-03 | 0.16593E-01 |
| 3 | -0.10044E+00 | -0.11986E+00 | 0.94366E+00 | 0.16323E-01 | - | - | 0.98812E-02 | 0.16728E-01 |
| 4 | -0.10044E+00 | -0.79893E-01 | 0.93151E+00 | 0.17461E-01 | - | - | 0.30264E-01 | 0.16971E-01 |
| 5 | -0.10044E+00 | -0.39928E-01 | 0.92663E+00 | 0.14647E-01 | - | - | 0.55594E-01 | 0.21144E-01 |
| 6 | -0.10044E+00 | 0.15778E-03 | 0.93886E+00 | 0.12962E-01 | - | - | 0.88023E-01 | 0.18810E-01 |
| 7 | -0.10044E+00 | 0.40123E-01 | 0.96274E+00 | 0.12586E-01 | - | - | 0.10152E+00 | 0.21371E-01 |
| 8 | -0.10044E+00 | 0.80087E-01 | 0.99054E+00 | 0.12533E-01 | - | - | 0.10794E+00 | 0.16989E-01 |
| 9 | -0.10044E+00 | 0.12029E+00 | 0.10128E+01 | 0.14287E-01 | - | - | 0.10711E+00 | 0.18345E-01 |
| 10 | -0.10044E+00 | 0.16026E+00 | 0.10316E+01 | 0.13987E-01 | - | - | 0.10954E+00 | 0.13693E-01 |
| 11 | -0.10044E+00 | 0.20022E+00 | 0.10405E+01 | 0.12661E-01 | - | - | 0.91196E-01 | 0.16735E-01 |
| 12 | -0.99708E-01 | 0.20022E+00 | 0.10390E+01 | 0.13323E-01 | - | - | 0.84131E-01 | 0.18313E-01 |
| 13 | 0.20064E-01 | 0.20022E+00 | 0.10876E+01 | 0.10955E-01 | - | - | 0.11159E+00 | 0.10959E-01 |
| 14 | 0.14020E+00 | 0.20022E+00 | 0.11487E+01 | 0.14810E-01 | - | - | 0.78160E-01 | 0.14146E-01 |
| 15 | 0.26009E+00 | 0.20022E+00 | 0.11660E+01 | 0.13182E-01 | - | - | 0.14831E-01 | 0.11969E-01 |
| 16 | 0.38023E+00 | 0.20022E+00 | 0.11563E+01 | 0.11351E-01 | - | - | -0.31179E-01 | 0.13197E-01 |
| 17 | 0.50013E+00 | 0.20022E+00 | 0.11244E+01 | 0.10156E-01 | - | - | -0.67767E-01 | 0.10204E-01 |
| 18 | 0.62014E+00 | 0.20022E+00 | 0.11005E+01 | 0.12353E-01 | - | - | -0.83548E-01 | 0.10444E-01 |
| 19 | 0.74028E+00 | 0.20022E+00 | 0.10767E+01 | 0.10718E-01 | - | - | -0.88454E-01 | 0.96390E-02 |
| 20 | 0.86017E+00 | 0.20022E+00 | 0.10510E+01 | 0.14154E-01 | - | - | -0.81559E-01 | 0.10851E-01 |
| 21 | 0.98019E+00 | 0.20022E+00 | 0.10370E+01 | 0.14255E-01 | - | - | -0.75250E-01 | 0.11174E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10270E+01 | 0.11398E-01 | - | - | -0.61168E-01 | 0.93561E-02 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10293E+01 | 0.13177E-01 | - | - | -0.61591E-01 | 0.11278E-01 |
| 24 | 0.11002E+01 | 0.15977E+00 | 0.10245E+01 | 0.13357E-01 | - | - | -0.69985E-01 | 0.10078E-01 |
| 25 | 0.11002E+01 | 0.11993E+00 | 0.10202E+01 | 0.12677E-01 | - | - | -0.74150E-01 | 0.86659E-02 |
| 26 | 0.11002E+01 | 0.79844E-01 | 0.10146E+01 | 0.14708E-01 | - | - | -0.88265E-01 | 0.10586E-01 |
| 27 | 0.11002E+01 | 0.39880E-01 | 0.10134E+01 | 0.15713E-01 | - | - | -0.10665E+00 | 0.11762E-01 |
| 28 | 0.11002E+01 | -0.85220E-04 | 0.99397E+00 | 0.28954E-01 | - | - | -0.15112E+00 | 0.26562E-01 |
| 29 | 0.11002E+01 | -0.40171E-01 | 0.97000E+00 | 0.41409E-01 | - | - | -0.24503E+00 | 0.37362E-01 |
| 30 | 0.11002E+01 | -0.80136E-01 | 0.97092E+00 | 0.40259E-01 | - | - | -0.21443E+00 | 0.47105E-01 |
| 31 | 0.11002E+01 | -0.12010E+00 | 0.78960E+00 | 0.50431E-01 | - | - | -0.53563E-01 | 0.61637E-01 |
| 32 | 0.11002E+01 | -0.16007E+00 | 0.86901E+00 | 0.64152E-01 | - | - | -0.46760E-01 | 0.94075E-02 |
| 33 | 0.11002E+01 | -0.20027E+00 | 0.98451E+00 | 0.25320E-01 | - | - | -0.26686E-01 | 0.95858E-02 |
| 34 | 0.10996E+01 | -0.20027E+00 | 0.10018E+01 | 0.98814E-02 | - | - | -0.26652E-01 | 0.87883E-02 |
| 35 | 0.97958E+00 | -0.20027E+00 | 0.99758E+00 | 0.10841E-01 | - | - | -0.36693E-01 | 0.44095E-01 |
| 36 | 0.85993E+00 | -0.20027E+00 | 0.10107E+01 | 0.12519E-01 | - | - | 0.11612E-01 | 0.10121E-01 |
| 37 | 0.73991E+00 | -0.20027E+00 | 0.10347E+01 | 0.10576E-01 | - | - | 0.14615E-01 | 0.79503E-02 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61978E+00 | -0.20027E+00 | 0.10533E+01 | 0.10823E-01 | - | - | 0.34114E-02 | 0.12752E-01 |
| 39 | 0.49988E+00 | -0.20027E+00 | 0.10604E+01 | 0.11087E-01 | - | - | -0.13347E-01 | 0.18165E-01 |
| 40 | 0.37987E+00 | -0.20027E+00 | 0.10602E+01 | 0.12168E-01 | - | - | -0.34156E-01 | 0.37792E-01 |
| 41 | 0.25973E+00 | -0.20027E+00 | 0.10439E+01 | 0.10648E-01 | - | - | -0.64022E-01 | 0.92857E-02 |
| 42 | 0.13984E+00 | -0.20027E+00 | 0.10099E+01 | 0.15095E-01 | - | - | -0.71612E-01 | 0.11138E-01 |
| 43 | 0.19700E-01 | -0.20027E+00 | 0.97350E+00 | 0.17868E-01 | - | - | -0.46854E-01 | 0.14169E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.96635E+00 | 0.14411E-01 | - | - | -0.84441E-02 | 0.16321E-01 |

I1 = 0.0527 I2 = 2.6357 I3 = 0.0888 I4 = -2.4541

Lift = 0.3231

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99344E-01 | -0.30000E+00 | 0.97117E+00 | 0.13047E-01 | - | - | -0.90642E-02 | 0.15357E-01 |
| 2 | -0.99344E-01 | -0.19991E+00 | 0.94967E+00 | 0.12903E-01 | - | - | 0.27440E-02 | 0.14927E-01 |
| 3 | -0.99344E-01 | -0.99936E-01 | 0.92336E+00 | 0.15208E-01 | - | - | 0.44259E-01 | 0.20313E-01 |
| 4 | -0.99344E-01 | 0.15778E-03 | 0.94142E+00 | 0.12388E-01 | - | - | 0.12016E+00 | 0.18806E-01 |
| 5 | -0.99344E-01 | 0.10025E+00 | 0.10200E+01 | 0.11209E-01 | - | - | 0.13027E+00 | 0.16900E-01 |
| 6 | -0.99344E-01 | 0.20022E+00 | 0.10611E+01 | 0.10594E-01 | - | - | 0.98682E-01 | 0.16227E-01 |
| 7 | -0.99344E-01 | 0.30020E+00 | 0.10720E+01 | 0.10822E-01 | - | - | 0.74539E-01 | 0.16351E-01 |
| 8 | -0.10007E+00 | 0.30020E+00 | 0.10725E+01 | 0.12653E-01 | - | - | 0.65404E-01 | 0.17541E-01 |
| 9 | -0.14070E-01 | 0.30020E+00 | 0.10960E+01 | 0.89835E-02 | - | - | 0.73182E-01 | 0.11980E-01 |
| 10 | 0.71690E-01 | 0.30020E+00 | 0.11217E+01 | 0.11612E-01 | - | - | 0.58933E-01 | 0.11287E-01 |
| 11 | 0.15733E+00 | 0.30020E+00 | 0.11439E+01 | 0.11788E-01 | - | - | 0.38606E-01 | 0.12500E-01 |
| 12 | 0.24309E+00 | 0.30020E+00 | 0.11571E+01 | 0.12427E-01 | - | - | 0.25497E-02 | 0.13243E-01 |
| 13 | 0.32885E+00 | 0.30020E+00 | 0.11538E+01 | 0.11095E-01 | - | - | -0.24874E-01 | 0.10939E-01 |
| 14 | 0.41461E+00 | 0.30020E+00 | 0.11408E+01 | 0.91972E-02 | - | - | -0.46431E-01 | 0.12194E-01 |
| 15 | 0.50037E+00 | 0.30020E+00 | 0.11253E+01 | 0.95177E-02 | - | - | -0.66822E-01 | 0.10714E-01 |
| 16 | 0.58613E+00 | 0.30020E+00 | 0.11083E+01 | 0.10944E-01 | - | - | -0.83433E-01 | 0.10737E-01 |
| 17 | 0.67177E+00 | 0.30020E+00 | 0.10950E+01 | 0.10861E-01 | - | - | -0.89073E-01 | 0.93724E-02 |
| 18 | 0.75740E+00 | 0.30020E+00 | 0.10812E+01 | 0.11125E-01 | - | - | -0.89329E-01 | 0.10961E-01 |
| 19 | 0.84304E+00 | 0.30020E+00 | 0.10681E+01 | 0.12551E-01 | - | - | -0.92432E-01 | 0.11068E-01 |
| 20 | 0.92880E+00 | 0.30020E+00 | 0.10563E+01 | 0.10517E-01 | - | - | -0.88797E-01 | 0.10226E-01 |
| 21 | 0.10144E+01 | 0.30020E+00 | 0.10479E+01 | 0.12092E-01 | - | - | -0.85203E-01 | 0.12402E-01 |
| 22 | 0.11001E+01 | 0.30020E+00 | 0.10411E+01 | 0.11355E-01 | - | - | -0.75644E-01 | 0.10647E-01 |
| 23 | 0.11001E+01 | 0.29983E+00 | 0.10419E+01 | 0.13486E-01 | - | - | -0.76638E-01 | 0.12950E-01 |
| 24 | 0.11001E+01 | 0.19986E+00 | 0.10337E+01 | 0.10808E-01 | - | - | -0.89090E-01 | 0.11005E-01 |
| 25 | 0.11001E+01 | 0.99887E-01 | 0.10223E+01 | 0.13740E-01 | - | - | -0.99209E-01 | 0.85744E-02 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10060E+01 | 0.14691E-01 | - | - | -0.10773E+00 | 0.84848E-02 |
| 27 | 0.11001E+01 | -0.10018E+00 | 0.94379E+00 | 0.37981E-01 | - | - | -0.11241E+00 | 0.29753E-01 |
| 28 | 0.11001E+01 | -0.20027E+00 | 0.99121E+00 | 0.10920E-01 | - | - | -0.63074E-01 | 0.79595E-02 |
| 29 | 0.11001E+01 | -0.30012E+00 | 0.10031E+01 | 0.13671E-01 | - | - | -0.51696E-01 | 0.11253E-01 |
| 30 | 0.10995E+01 | -0.30012E+00 | 0.10040E+01 | 0.14400E-01 | - | - | -0.48831E-01 | 0.97279E-02 |
| 31 | 0.10142E+01 | -0.30012E+00 | 0.10032E+01 | 0.13095E-01 | - | - | -0.42106E-01 | 0.12496E-01 |
| 32 | 0.92844E+00 | -0.30012E+00 | 0.10063E+01 | 0.15470E-01 | - | - | -0.29826E-01 | 0.10103E-01 |
| 33 | 0.84244E+00 | -0.30012E+00 | 0.10124E+01 | 0.11043E-01 | - | - | -0.24926E-01 | 0.10539E-01 |
| 34 | 0.75692E+00 | -0.30012E+00 | 0.10211E+01 | 0.13159E-01 | - | - | -0.22919E-01 | 0.87967E-02 |
| 35 | 0.67116E+00 | -0.30012E+00 | 0.10284E+01 | 0.13635E-01 | - | - | -0.27308E-01 | 0.82478E-02 |
| 36 | 0.58552E+00 | -0.30012E+00 | 0.10322E+01 | 0.13987E-01 | - | - | -0.32055E-01 | 0.10079E-01 |
| 37 | 0.49976E+00 | -0.30012E+00 | 0.10315E+01 | 0.12449E-01 | - | - | -0.40064E-01 | 0.10707E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.30012E+00 | 0.10283E+01 | 0.13190E-01 | - | - | -0.52321E-01 | 0.11631E-01 |
| 39 | 0.32836E+00 | -0.30012E+00 | 0.10168E+01 | 0.12929E-01 | - | - | -0.58184E-01 | 0.10738E-01 |
| 40 | 0.24248E+00 | -0.30012E+00 | 0.10045E+01 | 0.14058E-01 | - | - | -0.60256E-01 | 0.13186E-01 |
| 41 | 0.15684E+00 | -0.30012E+00 | 0.99010E+00 | 0.15107E-01 | - | - | -0.53772E-01 | 0.12040E-01 |
| 42 | 0.71083E-01 | -0.30012E+00 | 0.97795E+00 | 0.18630E-01 | - | - | -0.41071E-01 | 0.13396E-01 |
| 43 | -0.14677E-01 | -0.30012E+00 | 0.96829E+00 | 0.16690E-01 | - | - | -0.20452E-01 | 0.14243E-01 |
| 44 | -0.10007E+00 | -0.30012E+00 | 0.97328E+00 | 0.12949E-01 | - | - | -0.11943E-01 | 0.17349E-01 |

I1 = 0.0867 I2 = 2.6494 I3 = 0.1061 I4 = -2.4183

Lift = 0.4239

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 3 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.20003E+00 | 0.94597E+00 | 0.96522E-02 | - | - | -0.40705E-02 | 0.17361E-01 |
| 2 | -0.99708E-01 | -0.13322E+00 | 0.92379E+00 | 0.12860E-01 | - | - | 0.23288E-01 | 0.21129E-01 |
| 3 | -0.99708E-01 | -0.66531E-01 | 0.90825E+00 | 0.12103E-01 | - | - | 0.67264E-01 | 0.22842E-01 |
| 4 | -0.99708E-01 | 0.15778E-03 | 0.93214E+00 | 0.11105E-01 | - | - | 0.12231E+00 | 0.21435E-01 |
| 5 | -0.99708E-01 | 0.66846E-01 | 0.99369E+00 | 0.97986E-02 | - | - | 0.14067E+00 | 0.23170E-01 |
| 6 | -0.99708E-01 | 0.13341E+00 | 0.10358E+01 | 0.11107E-01 | - | - | 0.12054E+00 | 0.21542E-01 |
| 7 | -0.99708E-01 | 0.20010E+00 | 0.10642E+01 | 0.98573E-02 | - | - | 0.10874E+00 | 0.16051E-01 |
| 8 | -0.10032E+00 | 0.20010E+00 | 0.10610E+01 | 0.12594E-01 | - | - | 0.98505E-01 | 0.19353E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11012E+01 | 0.13127E-01 | - | - | 0.11193E+00 | 0.20750E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11587E+01 | 0.13325E-01 | - | - | 0.10198E+00 | 0.16611E-01 |
| 11 | 0.15745E+00 | 0.20010E+00 | 0.11940E+01 | 0.70749E-02 | - | - | 0.51358E-01 | 0.17590E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.11994E+01 | 0.11680E-01 | - | - | -0.78855E-02 | 0.13815E-01 |
| 13 | 0.32897E+00 | 0.20010E+00 | 0.11835E+01 | 0.82819E-02 | - | - | -0.50606E-01 | 0.13666E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11590E+01 | 0.81730E-02 | - | - | -0.80763E-01 | 0.13709E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11374E+01 | 0.10786E-01 | - | - | -0.10044E+00 | 0.10058E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11182E+01 | 0.10699E-01 | - | - | -0.11084E+00 | 0.13502E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10949E+01 | 0.86357E-02 | - | - | -0.11451E+00 | 0.11036E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10765E+01 | 0.78003E-02 | - | - | -0.12281E+00 | 0.16143E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10615E+01 | 0.70289E-02 | - | - | -0.11323E+00 | 0.12803E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10458E+01 | 0.76375E-02 | - | - | -0.11114E+00 | 0.18317E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10361E+01 | 0.71606E-02 | - | - | -0.10176E+00 | 0.15503E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10287E+01 | 0.69197E-02 | - | - | -0.90020E-01 | 0.11970E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10326E+01 | 0.11279E-01 | - | - | -0.86658E-01 | 0.11995E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10227E+01 | 0.75456E-02 | - | - | -0.96047E-01 | 0.11318E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10140E+01 | 0.78003E-02 | - | - | -0.10187E+00 | 0.13217E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10040E+01 | 0.82721E-02 | - | - | -0.10606E+00 | 0.95568E-02 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99081E+00 | 0.86517E-02 | - | - | -0.10222E+00 | 0.12260E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98705E+00 | 0.16876E-01 | - | - | -0.77192E-01 | 0.17118E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.99079E+00 | 0.84618E-02 | - | - | -0.63348E-01 | 0.93654E-02 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.99313E+00 | 0.78296E-02 | - | - | -0.63653E-01 | 0.77388E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98390E+00 | 0.86214E-02 | - | - | -0.53074E-01 | 0.77004E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98806E+00 | 0.10746E-01 | - | - | -0.34985E-01 | 0.15362E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.10052E+01 | 0.10137E-01 | - | - | -0.20509E-01 | 0.10614E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10179E+01 | 0.70590E-02 | - | - | -0.18248E-01 | 0.10839E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10296E+01 | 0.73729E-02 | - | - | -0.21934E-01 | 0.12587E-01 |
| 36 | 0.58540E+00 | -0.20015E+00 | 0.10399E+01 | 0.83201E-02 | - | - | -0.31839E-01 | 0.12708E-01 |
| 37 | 0.49964E+00 | -0.20015E+00 | 0.10415E+01 | 0.10429E-01 | - | - | -0.48231E-01 | 0.16285E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10393E+01 | 0.97407E-02 | - | - | -0.64123E-01 | 0.14890E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.10299E+01 | 0.97376E-02 | - | - | -0.76016E-01 | 0.11938E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10067E+01 | 0.15608E-01 | - | - | -0.85846E-01 | 0.13322E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.97961E+00 | 0.14583E-01 | - | - | -0.83763E-01 | 0.12827E-01 |
| 42 | 0.71083E-01 | -0.20015E+00 | 0.95142E+00 | 0.14481E-01 | - | - | -0.65831E-01 | 0.12534E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.94239E+00 | 0.14995E-01 | - | - | -0.36203E-01 | 0.17637E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.94740E+00 | 0.11818E-01 | - | - | 0.44478E-03 | 0.18811E-01 |

I1 = 0.0704 I2 = 2.6765 I3 = 0.0745 I4 = -2.4043

Lift = 0.4171

Rectangular Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.94204E+00 | 0.15056E-01 | - | - | 0.87320E-02 | 0.20109E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.92446E+00 | 0.16909E-01 | - | - | 0.28898E-01 | 0.18001E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.90908E+00 | 0.15168E-01 | - | - | 0.80099E-01 | 0.24361E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.93991E+00 | 0.13101E-01 | - | - | 0.13877E+00 | 0.22915E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10063E+01 | 0.12474E-01 | - | - | 0.16097E+00 | 0.22127E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10485E+01 | 0.13047E-01 | - | - | 0.13190E+00 | 0.18820E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10730E+01 | 0.13933E-01 | - | - | 0.10349E+00 | 0.17905E-01 |
| 8 | -0.99830E-01 | 0.20010E+00 | 0.10715E+01 | 0.12173E-01 | - | - | 0.10095E+00 | 0.19452E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11205E+01 | 0.12026E-01 | - | - | 0.12416E+00 | 0.16695E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11764E+01 | 0.14641E-01 | - | - | 0.10391E+00 | 0.16313E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.12188E+01 | 0.99055E-02 | - | - | 0.54101E-01 | 0.17191E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12194E+01 | 0.11935E-01 | - | - | -0.10612E-01 | 0.16557E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12060E+01 | 0.10683E-01 | - | - | -0.53043E-01 | 0.24830E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11803E+01 | 0.75483E-02 | - | - | -0.79768E-01 | 0.12684E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11572E+01 | 0.11333E-01 | - | - | -0.10077E+00 | 0.16211E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11316E+01 | 0.10577E-01 | - | - | -0.11259E+00 | 0.21055E-01 |
| 17 | 0.67168E+00 | 0.20010E+00 | 0.11083E+01 | 0.10499E-01 | - | - | -0.12269E+00 | 0.17858E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10876E+01 | 0.11927E-01 | - | - | -0.12584E+00 | 0.19531E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10687E+01 | 0.13020E-01 | - | - | -0.12396E+00 | 0.34622E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10578E+01 | 0.18313E-01 | - | - | -0.11309E+00 | 0.32381E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10436E+01 | 0.14425E-01 | - | - | -0.12328E+00 | 0.47766E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10380E+01 | 0.15391E-01 | - | - | -0.92619E-01 | 0.17925E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10381E+01 | 0.13458E-01 | - | - | -0.88968E-01 | 0.16503E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10332E+01 | 0.17786E-01 | - | - | -0.97442E-01 | 0.13802E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10192E+01 | 0.13247E-01 | - | - | -0.10186E+00 | 0.17793E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10074E+01 | 0.11613E-01 | - | - | -0.10077E+00 | 0.12579E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99708E+00 | 0.14624E-01 | - | - | -0.96520E-01 | 0.93966E-02 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98853E+00 | 0.19574E-01 | - | - | -0.71370E-01 | 0.22850E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.99627E+00 | 0.14201E-01 | - | - | -0.58827E-01 | 0.15698E-01 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.99621E+00 | 0.15274E-01 | - | - | -0.58438E-01 | 0.16632E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.98943E+00 | 0.14425E-01 | - | - | -0.47267E-01 | 0.12739E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.99217E+00 | 0.13434E-01 | - | - | -0.34563E-01 | 0.15666E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.10034E+01 | 0.14351E-01 | - | - | -0.24099E-01 | 0.14643E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10169E+01 | 0.12620E-01 | - | - | -0.26021E-01 | 0.30000E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10290E+01 | 0.13300E-01 | - | - | -0.27822E-01 | 0.18812E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10350E+01 | 0.11798E-01 | - | - | -0.36179E-01 | 0.21905E-01 |
| 37 | 0.49964E+00 | -0.20027E+00 | 0.10346E+01 | 0.13549E-01 | - | - | -0.49376E-01 | 0.17221E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10332E+01 | 0.14037E-01 | - | - | -0.60955E-01 | 0.47715E-01 |
| 39 | 0.32824E+00 | -0.20027E+00 | 0.10180E+01 | 0.14886E-01 | - | - | -0.76608E-01 | 0.16125E-01 |
| 40 | 0.24248E+00 | -0.20027E+00 | 0.99519E+00 | 0.15184E-01 | - | - | -0.85482E-01 | 0.13528E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.96498E+00 | 0.15033E-01 | - | - | -0.82886E-01 | 0.14373E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.93969E+00 | 0.19183E-01 | - | - | -0.56338E-01 | 0.17733E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.92869E+00 | 0.18328E-01 | - | - | -0.25140E-01 | 0.22026E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.94306E+00 | 0.17928E-01 | - | - | 0.64875E-02 | 0.25951E-01 |

I1 = 0.0797 I2 = 2.7148 I3 = 0.0721 I4 = -2.3906

Lift = 0.4760

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 16 at y/c = -1.493

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10157E+01 | 0.91164E-02 | - | - | 0.38086E-01 | 0.16790E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10159E+01 | 0.10251E-01 | - | - | 0.36841E-01 | 0.16528E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.10173E+01 | 0.10894E-01 | - | - | 0.39445E-01 | 0.17225E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.10184E+01 | 0.10697E-01 | - | - | 0.37618E-01 | 0.15994E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.10197E+01 | 0.10685E-01 | - | - | 0.36637E-01 | 0.16692E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.10282E+01 | 0.27210E-01 | - | - | 0.37937E-01 | 0.17006E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.10229E+01 | 0.10521E-01 | - | - | 0.38368E-01 | 0.17524E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10243E+01 | 0.10930E-01 | - | - | 0.35444E-01 | 0.17615E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10263E+01 | 0.10877E-01 | - | - | 0.39222E-01 | 0.16124E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10269E+01 | 0.10683E-01 | - | - | 0.37872E-01 | 0.15567E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10284E+01 | 0.10103E-01 | - | - | 0.37124E-01 | 0.17062E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10286E+01 | 0.10210E-01 | - | - | 0.36164E-01 | 0.17128E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10294E+01 | 0.92377E-02 | - | - | 0.40586E-01 | 0.13360E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10313E+01 | 0.10294E-01 | - | - | 0.46795E-01 | 0.20589E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10375E+01 | 0.11757E-01 | - | - | 0.62765E-01 | 0.38324E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.10406E+01 | 0.97793E-02 | - | - | 0.55163E-01 | 0.21568E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.10479E+01 | 0.11845E-01 | - | - | 0.56220E-01 | 0.24224E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.10549E+01 | 0.83378E-02 | - | - | 0.62543E-01 | 0.19112E-01 |
| 19 | 0.50037E+00 | 0.20010E+00 | 0.10607E+01 | 0.83465E-02 | - | - | 0.58976E-01 | 0.17064E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10677E+01 | 0.93008E-02 | - | - | 0.49621E-01 | 0.15864E-01 |
| 21 | 0.67152E+00 | 0.20010E+00 | 0.10717E+01 | 0.97571E-02 | - | - | 0.39418E-01 | 0.17247E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10676E+01 | 0.95207E-02 | - | - | 0.32215E-01 | 0.16381E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10618E+01 | 0.95918E-02 | - | - | 0.18941E-01 | 0.16012E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10505E+01 | 0.89384E-02 | - | - | 0.18403E-01 | 0.17814E-01 |
| 25 | 0.10144E+01 | 0.20010E+00 | 0.10425E+01 | 0.11740E-01 | - | - | 0.20198E-01 | 0.17462E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10347E+01 | 0.10908E-01 | - | - | 0.19387E-01 | 0.16228E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10340E+01 | 0.99329E-02 | - | - | 0.21011E-01 | 0.18077E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10314E+01 | 0.10897E-01 | - | - | 0.23547E-01 | 0.16152E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10296E+01 | 0.10114E-01 | - | - | 0.32170E-01 | 0.17151E-01 |
| 30 | 0.11002E+01 | 0.79844E-01 | 0.10262E+01 | 0.11574E-01 | - | - | 0.37451E-01 | 0.17997E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.10214E+01 | 0.12043E-01 | - | - | 0.53672E-01 | 0.18898E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.10116E+01 | 0.12174E-01 | - | - | 0.83568E-01 | 0.26179E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.98745E+00 | 0.15906E-01 | - | - | 0.20392E+00 | 0.58062E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.99665E+00 | 0.23276E-01 | - | - | 0.56580E+00 | 0.64790E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.10186E+01 | 0.11368E-01 | - | - | 0.15024E+00 | 0.29619E-01 |
| 36 | 0.11002E+01 | -0.16007E+00 | 0.10192E+01 | 0.11208E-01 | - | - | 0.10129E+00 | 0.18420E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.10166E+01 | 0.11953E-01 | - | - | 0.70414E-01 | 0.16152E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10997E+01 | -0.20015E+00 | 0.10188E+01 | 0.92415E-02 | - | - | 0.76799E-01 | 0.12424E-01 |
| 39 | 0.10142E+01 | -0.20015E+00 | 0.10169E+01 | 0.78094E-02 | - | - | 0.73077E-01 | 0.13897E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.10195E+01 | 0.95952E-02 | - | - | 0.50045E-01 | 0.49071E-01 |
| 41 | 0.84268E+00 | -0.20015E+00 | 0.10271E+01 | 0.11340E-01 | - | - | -0.56380E-02 | 0.56951E-01 |
| 42 | 0.75680E+00 | -0.20015E+00 | 0.10232E+01 | 0.11585E-01 | - | - | 0.44560E-01 | 0.19641E-01 |
| 43 | 0.67116E+00 | -0.20015E+00 | 0.10046E+01 | 0.10695E-01 | - | - | 0.31806E-01 | 0.40288E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10049E+01 | 0.11329E-01 | - | - | 0.49340E-01 | 0.37000E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10039E+01 | 0.97621E-02 | - | - | 0.11174E-01 | 0.50812E-01 |
| 46 | 0.41400E+00 | -0.20015E+00 | 0.10113E+01 | 0.86905E-02 | - | - | -0.30861E-02 | 0.46310E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10108E+01 | 0.74993E-02 | - | - | 0.45967E-01 | 0.22712E-01 |
| 48 | 0.24272E+00 | -0.20015E+00 | 0.10140E+01 | 0.96128E-02 | - | - | 0.47589E-01 | 0.44763E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10129E+01 | 0.99902E-02 | - | - | 0.45972E-01 | 0.20899E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10141E+01 | 0.11225E-01 | - | - | 0.42444E-01 | 0.30636E-01 |
| 51 | -0.14434E-01 | -0.20015E+00 | 0.10135E+01 | 0.78699E-02 | - | - | 0.38340E-01 | 0.13082E-01 |
| 52 | -0.10007E+00 | -0.20015E+00 | 0.10151E+01 | 0.79359E-02 | - | - | 0.21616E-01 | 0.16554E-01 |

I1 = 0.0300 I2 = 2.5197 I3 = -0.1125 I4 = -2.4324

Lift = 0.0048

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 15 at y/c = -1.473

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.20015E+00 | 0.10170E+01 | 0.84116E-02 | - | - | 0.36428E-01 | 0.17448E-01 |
| 2 | -0.99708E-01 | -0.15982E+00 | 0.10185E+01 | 0.78377E-02 | - | - | 0.37403E-01 | 0.19417E-01 |
| 3 | -0.99708E-01 | -0.11986E+00 | 0.10191E+01 | 0.75358E-02 | - | - | 0.37877E-01 | 0.19832E-01 |
| 4 | -0.99708E-01 | -0.79893E-01 | 0.10209E+01 | 0.97737E-02 | - | - | 0.42778E-01 | 0.18606E-01 |
| 5 | -0.99708E-01 | -0.39928E-01 | 0.10212E+01 | 0.77417E-02 | - | - | 0.39122E-01 | 0.18289E-01 |
| 6 | -0.99708E-01 | 0.15778E-03 | 0.10267E+01 | 0.18414E-01 | - | - | 0.38113E-01 | 0.18001E-01 |
| 7 | -0.99708E-01 | 0.40244E-01 | 0.10252E+01 | 0.83230E-02 | - | - | 0.43607E-01 | 0.17679E-01 |
| 8 | -0.99708E-01 | 0.80087E-01 | 0.10266E+01 | 0.84163E-02 | - | - | 0.43615E-01 | 0.18299E-01 |
| 9 | -0.99708E-01 | 0.12029E+00 | 0.10287E+01 | 0.86591E-02 | - | - | 0.39657E-01 | 0.18340E-01 |
| 10 | -0.99708E-01 | 0.16026E+00 | 0.10302E+01 | 0.81701E-02 | - | - | 0.44912E-01 | 0.18060E-01 |
| 11 | -0.99708E-01 | 0.20010E+00 | 0.10305E+01 | 0.79693E-02 | - | - | 0.38848E-01 | 0.18797E-01 |
| 12 | -0.10032E+00 | 0.20010E+00 | 0.10320E+01 | 0.82648E-02 | - | - | 0.46459E-01 | 0.17325E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10333E+01 | 0.70153E-02 | - | - | 0.49207E-01 | 0.17241E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10353E+01 | 0.80956E-02 | - | - | 0.45959E-01 | 0.25434E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10423E+01 | 0.86541E-02 | - | - | 0.59119E-01 | 0.29848E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.10441E+01 | 0.75114E-02 | - | - | 0.56523E-01 | 0.26354E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.10495E+01 | 0.91257E-02 | - | - | 0.58146E-01 | 0.31833E-01 |
| 18 | 0.41461E+00 | 0.20010E+00 | 0.10574E+01 | 0.81784E-02 | - | - | 0.55626E-01 | 0.11644E-01 |
| 19 | 0.50037E+00 | 0.20010E+00 | 0.10632E+01 | 0.83725E-02 | - | - | 0.58107E-01 | 0.20752E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10737E+01 | 0.96251E-02 | - | - | 0.51510E-01 | 0.15170E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10768E+01 | 0.95428E-02 | - | - | 0.49795E-01 | 0.20387E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10747E+01 | 0.93419E-02 | - | - | 0.31752E-01 | 0.18043E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10645E+01 | 0.10442E-01 | - | - | 0.21810E-01 | 0.18727E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10538E+01 | 0.69779E-02 | - | - | 0.14708E-01 | 0.18444E-01 |
| 25 | 0.10147E+01 | 0.20010E+00 | 0.10437E+01 | 0.79022E-02 | - | - | 0.16137E-01 | 0.21159E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10374E+01 | 0.90019E-02 | - | - | 0.15297E-01 | 0.15962E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10373E+01 | 0.88195E-02 | - | - | 0.18361E-01 | 0.18131E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10342E+01 | 0.79030E-02 | - | - | 0.17862E-01 | 0.16609E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10322E+01 | 0.93098E-02 | - | - | 0.24229E-01 | 0.18335E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10288E+01 | 0.74950E-02 | - | - | 0.30128E-01 | 0.18671E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10212E+01 | 0.92143E-02 | - | - | 0.41862E-01 | 0.21643E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10139E+01 | 0.92575E-02 | - | - | 0.51472E-01 | 0.29886E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.99153E+00 | 0.21423E-01 | - | - | 0.24155E-01 | 0.70787E-01 |
| 34 | 0.11001E+01 | -0.80258E-01 | 0.10114E+01 | 0.36696E-01 | - | - | -0.16680E+00 | 0.54548E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.10237E+01 | 0.83195E-02 | - | - | 0.10080E+00 | 0.35013E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10199E+01 | 0.83912E-02 | - | - | 0.81742E-01 | 0.22293E-01 |
| 37 | 0.11001E+01 | -0.20027E+00 | 0.10191E+01 | 0.79551E-02 | - | - | 0.58811E-01 | 0.18161E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20027E+00 | 0.10190E+01 | 0.97836E-02 | - | - | 0.60169E-01 | 0.17758E-01 |
| 39 | 0.10142E+01 | -0.20027E+00 | 0.10173E+01 | 0.71615E-02 | - | - | 0.62735E-01 | 0.15965E-01 |
| 40 | 0.92832E+00 | -0.20027E+00 | 0.10215E+01 | 0.63552E-02 | - | - | 0.50295E-01 | 0.44275E-01 |
| 41 | 0.84256E+00 | -0.20027E+00 | 0.10274E+01 | 0.73482E-02 | - | - | 0.15108E-01 | 0.55521E-01 |
| 42 | 0.75704E+00 | -0.20027E+00 | 0.10209E+01 | 0.71415E-02 | - | - | -0.19818E-01 | 0.53768E-01 |
| 43 | 0.67104E+00 | -0.20027E+00 | 0.10082E+01 | 0.78408E-02 | - | - | -0.35988E-01 | 0.46015E-01 |
| 44 | 0.58552E+00 | -0.20027E+00 | 0.10013E+01 | 0.71886E-02 | - | - | -0.32509E-01 | 0.50486E-01 |
| 45 | 0.49976E+00 | -0.20027E+00 | 0.10050E+01 | 0.67856E-02 | - | - | -0.46655E-01 | 0.51936E-01 |
| 46 | 0.41400E+00 | -0.20027E+00 | 0.10105E+01 | 0.60398E-02 | - | - | -0.69314E-01 | 0.48544E-01 |
| 47 | 0.32836E+00 | -0.20027E+00 | 0.10137E+01 | 0.84863E-02 | - | - | -0.66085E-01 | 0.50193E-01 |
| 48 | 0.24260E+00 | -0.20027E+00 | 0.10155E+01 | 0.65438E-02 | - | - | -0.70969E-01 | 0.47731E-01 |
| 49 | 0.15696E+00 | -0.20027E+00 | 0.10173E+01 | 0.78421E-02 | - | - | -0.21351E-01 | 0.45994E-01 |
| 50 | 0.71204E-01 | -0.20027E+00 | 0.10161E+01 | 0.66328E-02 | - | - | -0.20494E-01 | 0.43975E-01 |
| 51 | -0.14556E-01 | -0.20027E+00 | 0.10161E+01 | 0.71795E-02 | - | - | 0.35135E-01 | 0.18508E-01 |
| 52 | -0.10019E+00 | -0.20027E+00 | 0.10171E+01 | 0.71401E-02 | - | - | 0.40184E-01 | 0.21618E-01 |

I1 = 0.0326 I2 = 2.5280 I3 = -0.0138 I4 = -2.4359

Lift = 0.1109

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 14 at y/c = -1.452

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10148E+01 | 0.83837E-02 | - | - | 0.37093E-01 | 0.14181E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10158E+01 | 0.78196E-02 | - | - | 0.37414E-01 | 0.15406E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.10171E+01 | 0.81245E-02 | - | - | 0.37172E-01 | 0.14870E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.10184E+01 | 0.83006E-02 | - | - | 0.33153E-01 | 0.14453E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.10202E+01 | 0.88557E-02 | - | - | 0.42469E-01 | 0.14713E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.10225E+01 | 0.99057E-02 | - | - | 0.38532E-01 | 0.16635E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.10244E+01 | 0.75257E-02 | - | - | 0.37634E-01 | 0.13332E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10248E+01 | 0.82644E-02 | - | - | 0.39675E-01 | 0.13025E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10275E+01 | 0.67634E-02 | - | - | 0.40887E-01 | 0.13754E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10289E+01 | 0.71657E-02 | - | - | 0.35027E-01 | 0.15805E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10300E+01 | 0.70990E-02 | - | - | 0.34289E-01 | 0.14385E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10297E+01 | 0.54767E-02 | - | - | 0.37584E-01 | 0.14291E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10314E+01 | 0.79946E-02 | - | - | 0.41539E-01 | 0.12905E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10341E+01 | 0.63893E-02 | - | - | 0.34942E-01 | 0.12676E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10402E+01 | 0.86282E-02 | - | - | 0.53822E-01 | 0.13972E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.10466E+01 | 0.76038E-02 | - | - | 0.58425E-01 | 0.15509E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.10513E+01 | 0.90525E-02 | - | - | 0.49393E-01 | 0.14870E-01 |
| 18 | 0.41461E+00 | 0.20010E+00 | 0.10596E+01 | 0.69793E-02 | - | - | 0.56967E-01 | 0.16554E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.10687E+01 | 0.78993E-02 | - | - | 0.61357E-01 | 0.16935E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10731E+01 | 0.73926E-02 | - | - | 0.48890E-01 | 0.13488E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10783E+01 | 0.75568E-02 | - | - | 0.39819E-01 | 0.12906E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10751E+01 | 0.84421E-02 | - | - | 0.21378E-01 | 0.10650E-01 |
| 23 | 0.84316E+00 | 0.20010E+00 | 0.10642E+01 | 0.61414E-02 | - | - | 0.13250E-01 | 0.13141E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10544E+01 | 0.83172E-02 | - | - | 0.76943E-02 | 0.15163E-01 |
| 25 | 0.10144E+01 | 0.20010E+00 | 0.10410E+01 | 0.69991E-02 | - | - | 0.63300E-02 | 0.11375E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10369E+01 | 0.73625E-02 | - | - | 0.83783E-02 | 0.13839E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10369E+01 | 0.76268E-02 | - | - | 0.73837E-02 | 0.16268E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10340E+01 | 0.78005E-02 | - | - | 0.12308E-01 | 0.16282E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10310E+01 | 0.76191E-02 | - | - | 0.12278E-01 | 0.12932E-01 |
| 30 | 0.11002E+01 | 0.79914E-01 | 0.10283E+01 | 0.70590E-02 | - | - | 0.61265E-02 | 0.12876E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.10223E+01 | 0.80657E-02 | - | - | 0.11051E-01 | 0.15649E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.10158E+01 | 0.93658E-02 | - | - | -0.74590E-02 | 0.19765E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.10085E+01 | 0.14427E-01 | - | - | -0.11866E+00 | 0.37358E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.10776E+01 | 0.20768E-01 | - | - | -0.28393E+00 | 0.49676E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.10230E+01 | 0.96759E-02 | - | - | 0.23834E-01 | 0.24278E-01 |
| 36 | 0.11002E+01 | -0.16007E+00 | 0.10178E+01 | 0.79703E-02 | - | - | 0.50987E-01 | 0.16193E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.10161E+01 | 0.75031E-02 | - | - | 0.41979E-01 | 0.15591E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10177E+01 | 0.62124E-02 | - | - | 0.44360E-01 | 0.12673E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.10164E+01 | 0.67988E-02 | - | - | 0.46826E-01 | 0.13402E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10192E+01 | 0.59374E-02 | - | - | 0.50635E-01 | 0.40055E-01 |
| 41 | 0.84268E+00 | -0.20015E+00 | 0.10258E+01 | 0.66734E-02 | - | - | 0.34054E-01 | 0.41191E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10160E+01 | 0.75993E-02 | - | - | 0.44517E-01 | 0.38545E-01 |
| 43 | 0.67116E+00 | -0.20015E+00 | 0.99920E+00 | 0.75942E-02 | - | - | 0.50822E-01 | 0.27069E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.99914E+00 | 0.74871E-02 | - | - | 0.55653E-01 | 0.14460E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10018E+01 | 0.76269E-02 | - | - | 0.55868E-01 | 0.40725E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10073E+01 | 0.81713E-02 | - | - | 0.59968E-01 | 0.28649E-01 |
| 47 | 0.32848E+00 | -0.20015E+00 | 0.10125E+01 | 0.78186E-02 | - | - | 0.52263E-01 | 0.16110E-01 |
| 48 | 0.24272E+00 | -0.20015E+00 | 0.10143E+01 | 0.78018E-02 | - | - | 0.49373E-01 | 0.12745E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10137E+01 | 0.83778E-02 | - | - | 0.36783E-01 | 0.10698E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10158E+01 | 0.60066E-02 | - | - | 0.44256E-01 | 0.30022E-01 |
| 51 | -0.14434E-01 | -0.20015E+00 | 0.10114E+01 | 0.80214E-02 | - | - | 0.36295E-01 | 0.11787E-01 |
| 52 | -0.10007E+00 | -0.20015E+00 | 0.10149E+01 | 0.68161E-02 | - | - | 0.31295E-01 | 0 11391E-01 |

I1 = 0.0299 I2 = 2.5287 I3 = 0.0262 I4 = -2.4285

Lift = 0.1563

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 13 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.10148E+01 | 0.72704E-02 | - | - | 0.38149E-01 | 0.16057E-01 |
| 2 | -0.10007E+00 | -0.15982E+00 | 0.10155E+01 | 0.76500E-02 | - | - | 0.38017E-01 | 0.15754E-01 |
| 3 | -0.10007E+00 | -0.11986E+00 | 0.10168E+01 | 0.70698E-02 | - | - | 0.35805E-01 | 0.17791E-01 |
| 4 | -0.10007E+00 | -0.79893E-01 | 0.10180E+01 | 0.76331E-02 | - | - | 0.41913E-01 | 0.15327E-01 |
| 5 | -0.10007E+00 | -0.39928E-01 | 0.10205E+01 | 0.71834E-02 | - | - | 0.38510E-01 | 0.16203E-01 |
| 6 | -0.10007E+00 | 0.15778E-03 | 0.10235E+01 | 0.13188E-01 | - | - | 0.45420E-01 | 0.17549E-01 |
| 7 | -0.10007E+00 | 0.40123E-01 | 0.10239E+01 | 0.71640E-02 | - | - | 0.40312E-01 | 0.16363E-01 |
| 8 | -0.10007E+00 | 0.80087E-01 | 0.10272E+01 | 0.71909E-02 | - | - | 0.46141E-01 | 0.17105E-01 |
| 9 | -0.10007E+00 | 0.12017E+00 | 0.10284E+01 | 0.68384E-02 | - | - | 0.43822E-01 | 0.18764E-01 |
| 10 | -0.10007E+00 | 0.16016E+00 | 0.10293E+01 | 0.74231E-02 | - | - | 0.39188E-01 | 0.18332E-01 |
| 11 | -0.10007E+00 | 0.20010E+00 | 0.10323E+01 | 0.70342E-02 | - | - | 0.42594E-01 | 0.15750E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10303E+01 | 0.69194E-02 | - | - | 0.40236E-01 | 0.15711E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10325E+01 | 0.74027E-02 | - | - | 0.46086E-01 | 0.14562E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10354E+01 | 0.88579E-02 | - | - | 0.49862E-01 | 0.16606E-01 |
| 15 | 0.15745E+00 | 0.20010E+00 | 0.10424E+01 | 0.70321E-02 | - | - | 0.59605E-01 | 0.24013E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.10486E+01 | 0.57155E-02 | - | - | 0.59830E-01 | 0.16714E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.10569E+01 | 0.66357E-02 | - | - | 0.57775E-01 | 0.18346E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.10658E+01 | 0.63396E-02 | - | - | 0.60879E-01 | 0.15242E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.10745E+01 | 0.70277E-02 | - | - | 0.46753E-01 | 0.15826E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10867E+01 | 0.76378E-02 | - | - | 0.46898E-01 | 0.13359E-01 |
| 21 | 0.67152E+00 | 0.20010E+00 | 0.10891E+01 | 0.70174E-02 | - | - | 0.36743E-01 | 0.14939E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.10846E+01 | 0.59965E-02 | - | - | 0.18135E-01 | 0.11305E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10683E+01 | 0.67385E-02 | - | - | -0.18223E-02 | 0.18232E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10565E+01 | 0.72088E-02 | - | - | -0.88631E-02 | 0.13828E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10448E+01 | 0.47908E-02 | - | - | -0.92976E-02 | 0.19487E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10357E+01 | 0.64276E-02 | - | - | -0.68390E-02 | 0.13776E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10363E+01 | 0.74281E-02 | - | - | -0.32169E-02 | 0.15481E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10349E+01 | 0.73628E-02 | - | - | -0.10358E-01 | 0.16268E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10322E+01 | 0.71534E-02 | - | - | -0.16191E-01 | 0.16935E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10296E+01 | 0.67293E-02 | - | - | -0.22209E-01 | 0.13705E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10252E+01 | 0.78316E-02 | - | - | -0.34622E-01 | 0.14363E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10237E+01 | 0.78549E-02 | - | - | -0.64500E-01 | 0.12911E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.10234E+01 | 0.74753E-02 | - | - | -0.10507E+00 | 0.12882E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.10297E+01 | 0.91343E-02 | - | - | -0.98806E-01 | 0.14041E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.10142E+01 | 0.92789E-02 | - | - | -0.37452E-01 | 0.11907E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10143E+01 | 0.74886E-02 | - | - | -0.30562E-02 | 0.13864E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10141E+01 | 0.65012E-02 | - | - | 0.12825E-01 | 0.14602E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10138E+01 | 0.68280E-02 | - | - | 0.11049E-01 | 0.18152E-01 |
| 39 | 0.10142E+01 | -0.20015E+00 | 0.10126E+01 | 0.61671E-02 | - | - | 0.12357E-01 | 0.12674E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.10150E+01 | 0.67832E-02 | - | - | 0.60405E-02 | 0.46289E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10184E+01 | 0.74401E-02 | - | - | -0.90834E-02 | 0.47956E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10112E+01 | 0.80596E-02 | - | - | -0.42137E-01 | 0.55752E-01 |
| 43 | 0.67128E+00 | -0.20015E+00 | 0.99541E+00 | 0.80179E-02 | - | - | -0.84544E-01 | 0.55505E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.99004E+00 | 0.76809E-02 | - | - | -0.56075E-01 | 0.58366E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.99410E+00 | 0.67598E-02 | - | - | -0.96313E-01 | 0.55074E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.99787E+00 | 0.72769E-02 | - | - | -0.11912E+00 | 0.56584E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10055E+01 | 0.69835E-02 | - | - | -0.93537E-01 | 0.46655E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10103E+01 | 0.71121E-02 | - | - | -0.11128E+00 | 0.57569E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.10121E+01 | 0.74047E-02 | - | - | -0.36652E-01 | 0.61070E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.10124E+01 | 0.78640E-02 | - | - | -0.22714E-01 | 0.43841E-01 |
| 51 | -0.14434E-01 | -0.20015E+00 | 0.10134E+01 | 0.77694E-02 | - | - | 0.29947E-01 | 0.14554E-01 |
| 52 | -0.10607E+00 | -0.20015E+00 | 0.10138E+01 | 0.72750E-02 | - | - | 0.39672E-01 | 0.14100E-01 |

I1 = 0.0331 I2 = 2.5403 I3 = 0.0313 I4 = -2.4175

Lift = 0.1872

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 12 at y/c = -1.302

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10114E+01 | 0.74391E-02 | - | - | 0.37143E-01 | 0.16482E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.10132E+01 | 0.81274E-02 | - | - | 0.42048E-01 | 0.12146E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.10171E+01 | 0.72540E-02 | - | - | 0.37089E-01 | 0.14070E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.10220E+01 | 0.10867E-01 | - | - | 0.37332E-01 | 0.15203E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.10248E+01 | 0.82360E-02 | - | - | 0.47325E-01 | 0.16680E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10291E+01 | 0.87103E-02 | - | - | 0.50258E-01 | 0.16187E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10327E+01 | 0.74700E-02 | - | - | 0.45075E-01 | 0.14200E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10318E+01 | 0.58790E-02 | - | - | 0.47705E-01 | 0.13730E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10340E+01 | 0.80063E-02 | - | - | 0.43675E-01 | 0.13005E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10405E+01 | 0.68567E-02 | - | - | 0.60500E-01 | 0.14873E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10463E+01 | 0.71646E-02 | - | - | 0.58205E-01 | 0.15801E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.10582E+01 | 0.65568E-02 | - | - | 0.64568E-01 | 0.15815E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.10705E+01 | 0.76329E-02 | - | - | 0.64774E-01 | 0.13038E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.10853E+01 | 0.88771E-02 | - | - | 0.66706E-01 | 0.12912E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.10959E+01 | 0.71786E-02 | - | - | 0.48638E-01 | 0.10605E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11048E+01 | 0.91227E-02 | - | - | 0.33044E-01 | 0.14858E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11021E+01 | 0.69122E-02 | - | - | 0.38391E-02 | 0.12690E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10914E+01 | 0.89604E-02 | - | - | -0.19418E-01 | 0.12179E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10742E+01 | 0.94046E-02 | - | - | -0.28998E-01 | 0.15326E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10624E+01 | 0.72081E-02 | - | - | -0.26344E-01 | 0.11207E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10463E+01 | 0.87389E-02 | - | - | -0.33172E-01 | 0.13276E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10370E+01 | 0.75780E-02 | - | - | -0.41481E-01 | 0.10718E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10382E+01 | 0.91709E-02 | - | - | -0.35566E-01 | 0.12662E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10330E+01 | 0.88737E-02 | - | - | -0.43181E-01 | 0.13777E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10276E+01 | 0.78407E-02 | - | - | -0.59359E-01 | 0.11493E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10167E+01 | 0.82395E-02 | - | - | -0.78751E-01 | 0.82045E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.10039E+01 | 0.86471E-02 | - | - | -0.87293E-01 | 0.86719E-02 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.10009E+01 | 0.73160E-02 | - | - | -0.56482E-01 | 0.68895E-02 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10046E+01 | 0.75714E-02 | - | - | -0.21670E-01 | 0.10160E-01 |
| 30 | 0.10997E+01 | -0.20015E+00 | 0.10086E+01 | 0.63618E-02 | - | - | -0.25157E-01 | 0.11047E-01 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.10036E+01 | 0.81582E-02 | - | - | -0.19003E-01 | 0.10405E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.10052E+01 | 0.95434E-02 | - | - | -0.43006E-01 | 0.46520E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.10122E+01 | 0.84392E-02 | - | - | -0.60251E-01 | 0.45044E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10091E+01 | 0.91436E-02 | - | - | -0.10671E+00 | 0.50815E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.99766E+00 | 0.10915E-01 | - | - | -0.43376E-01 | 0.37605E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.97707E+00 | 0.79635E-02 | - | - | -0.33968E-01 | 0.39208E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.97438E+00 | 0.84110E-02 | - | - | -0.53846E-01 | 0.42536E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.98339E+00 | 0.78060E-02 | - | - | -0.71325E-01 | 0.50880E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.99343E+00 | 0.83364E-02 | - | - | 0.10237E-01 | 0.58981E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.99860E+00 | 0.67489E-02 | - | - | 0.52954E-01 | 0.13723E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10025E+01 | 0.74610E-02 | - | - | 0.42643E-01 | 0.13183E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.10070E+01 | 0.60850E-02 | - | - | 0.36808E-01 | 0.31335E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.10090E+01 | 0.87079E-02 | - | - | 0.41073E-01 | 0.12501E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.10104E+01 | 0.84587E-02 | - | - | 0.34271E-01 | 0.15631E-01 |

I1 = 0.0342 I2 = 2.5622 I3 = 0.0473 I4 = -2.3972

Lift = 0.2465

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 11 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.20003E+00 | 0.98988E+00 | 0.73354E-02 | - | - | 0.35267E-01 | 0.15829E-01 |
| 2 | -0.99708E-01 | -0.13322E+00 | 0.99224E+00 | 0.87534E-02 | - | - | 0.46349E-01 | 0.17758E-01 |
| 3 | -0.99708E-01 | -0.66531E-01 | 0.99676E+00 | 0.93341E-02 | - | - | 0.56985E-01 | 0.17560E-01 |
| 4 | -0.99708E-01 | 0.15778E-03 | 0.10048E+01 | 0.86969E-02 | - | - | 0.66113E-01 | 0.15331E-01 |
| 5 | -0.99708E-01 | 0.66846E-01 | 0.10174E+01 | 0.93932E-02 | - | - | 0.74575E-01 | 0.18076E-01 |
| 6 | -0.99708E-01 | 0.13341E+00 | 0.10276E+01 | 0.78059E-02 | - | - | 0.66840E-01 | 0.13381E-01 |
| 7 | -0.99708E-01 | 0.20010E+00 | 0.10356E+01 | 0.91053E-02 | - | - | 0.52230E-01 | 0.14531E-01 |
| 8 | -0.10032E+00 | 0.20010E+00 | 0.10370E+01 | 0.75874E-02 | - | - | 0.54879E-01 | 0.15603E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.10454E+01 | 0.87914E-02 | - | - | 0.73471E-01 | 0.15084E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.10630E+01 | 0.87201E-02 | - | - | 0.89104E-01 | 0.19143E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.10872E+01 | 0.81471E-02 | - | - | 0.91777E-01 | 0.14522E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.11195E+01 | 0.97376E-02 | - | - | 0.88727E-01 | 0.15694E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.11403E+01 | 0.11397E-01 | - | - | 0.56736E-01 | 0.17548E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11509E+01 | 0.10439E-01 | - | - | 0.21374E-01 | 0.14495E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11430E+01 | 0.91944E-02 | - | - | -0.14316E-01 | 0.16654E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11257E+01 | 0.89663E-02 | - | - | -0.49529E-01 | 0.17932E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11036E+01 | 0.78893E-02 | - | - | -0.77713E-01 | 0.14185E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10873E+01 | 0.89585E-02 | - | - | -0.84678E-01 | 0.19203E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10680E+01 | 0.79567E-02 | - | - | -0.82107E-01 | 0.13102E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10509E+01 | 0.76407E-02 | - | - | -0.76124E-01 | 0.20595E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10395E+01 | 0.62529E-02 | - | - | -0.80657E-01 | 0.11911E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10327E+01 | 0.95183E-02 | - | - | -0.68998E-01 | 0.17828E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10313E+01 | 0.75951E-02 | - | - | -0.69132E-01 | 0.19495E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10255E+01 | 0.74794E-02 | - | - | -0.82045E-01 | 0.15714E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10158E+01 | 0.87010E-02 | - | - | -0.87004E-01 | 0.16245E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10039E+01 | 0.89308E-02 | - | - | -0.96484E-01 | 0.16282E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98838E+00 | 0.88918E-02 | - | - | -0.96043E-01 | 0.14824E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.98583E+00 | 0.99998E-02 | - | - | -0.72071E-01 | 0.13985E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.99188E+00 | 0.84353E-02 | - | - | -0.59582E-01 | 0.12384E-01 |
| 30 | 0.10997E+01 | -0.20015E+00 | 0.99139E+00 | 0.99606E-02 | - | - | -0.53040E-01 | 0.16349E-01 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.98524E+00 | 0.92328E-02 | - | - | -0.44076E-01 | 0.10533E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98544E+00 | 0.87644E-02 | - | - | -0.76832E-01 | 0.47810E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99556E+00 | 0.74412E-02 | - | - | -0.10615E+00 | 0.47740E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10051E+01 | 0.10473E-01 | - | - | -0.15042E+00 | 0.54792E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10052E+01 | 0.10138E-01 | - | - | -0.19010E+00 | 0.53447E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10063E+01 | 0.99129E-02 | - | - | -0.24520E+00 | 0.56927E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.99465E+00 | 0.99421E-02 | - | - | -0.27446E+00 | 0.52737E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.97582E+00 | 0.12329E-01 | - | - | -0.27359E+00 | 0.44942E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.96486E+00 | 0.83304E-02 | - | - | -0.28582E+00 | 0.50952E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.96243E+00 | 0.11493E-01 | - | - | -0.32700E+00 | 0.47211E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.96734E+00 | 0.79001E-02 | - | - | -0.33472E+00 | 0.44544E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.97689E+00 | 0.91420E-02 | - | - | -0.35031E+00 | 0.43934E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.98135E+00 | 0.10978E-01 | - | - | -0.37424E+00 | 0.49532E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.98809E+00 | 0.73360E-02 | - | - | -0.39452E+00 | 0.50294E-01 |

I1 = 0.0475 I2 = 2.6155 I3 = 0.0665 I4 = -2.3646

Lift = 0.3649

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 10 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.93494E+00 | 0.13085E-01 | - | - | 0.13291E-01 | 0.23748E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.91583E+00 | 0.14049E-01 | - | - | 0.21937E-01 | 0.24705E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.89763E+00 | 0.12728E-01 | - | - | 0.65764E-01 | 0.23518E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.91641E+00 | 0.12013E-01 | - | - | 0.11635E+00 | 0.24897E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.97660E+00 | 0.99747E-02 | - | - | 0.15748E+00 | 0.27777E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10266E+01 | 0.93431E-02 | - | - | 0.14118E+00 | 0.20329E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10513E+01 | 0.88371E-02 | - | - | 0.11431E+00 | 0.20479E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10500E+01 | 0.10004E-01 | - | - | 0.10799E+00 | 0.19984E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.10950E+01 | 0.11722E-01 | - | - | 0.13087E+00 | 0.18691E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11483E+01 | 0.10513E-01 | - | - | 0.11083E+00 | 0.16114E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.11958E+01 | 0.13778E-01 | - | - | 0.55771E-01 | 0.23564E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12116E+01 | 0.83689E-02 | - | - | 0.10911E-01 | 0.32760E-01 |
| 13 | 0.32897E+00 | 0.20010E+00 | 0.11867E+01 | 0.78532E-02 | - | - | -0.35545E-01 | 0.37199E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11669E+01 | 0.95276E-02 | - | - | -0.77249E-01 | 0.19657E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11396E+01 | 0.88514E-02 | - | - | -0.10004E+00 | 0.23656E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11181E+01 | 0.81245E-02 | - | - | -0.10880E+00 | 0.19362E-01 |
| 17 | 0.67177E+00 | 0.20010E+00 | 0.10960E+01 | 0.87162E-02 | - | - | -0.11822E+00 | 0.18483E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10764E+01 | 0.73213E-02 | - | - | -0.12330E+00 | 0.17710E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10599E+01 | 0.98601E-02 | - | - | -0.11780E+00 | 0.18802E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10444E+01 | 0.87506E-02 | - | - | -0.11231E+00 | 0.21236E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10370E+01 | 0.11606E-01 | - | - | -0.10106E+00 | 0.18298E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10275E+01 | 0.80302E-02 | - | - | -0.95300E-01 | 0.17145E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10288E+01 | 0.83748E-02 | - | - | -0.84823E-01 | 0.22080E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10199E+01 | 0.85975E-02 | - | - | -0.93954E-01 | 0.20111E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10092E+01 | 0.10521E-01 | - | - | -0.97230E-01 | 0.19877E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.99519E+00 | 0.10246E-01 | - | - | -0.10126E+00 | 0.17406E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.97819E+00 | 0.98807E-02 | - | - | -0.96941E-01 | 0.20158E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.97569E+00 | 0.14803E-01 | - | - | -0.68122E-01 | 0.19858E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98538E+00 | 0.10083E-01 | - | - | -0.56301E-01 | 0.18580E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.98348E+00 | 0.80841E-02 | - | - | -0.56036E-01 | 0.16782E-01 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.98119E+00 | 0.76690E-02 | - | - | -0.50971E-01 | 0.18917E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98438E+00 | 0.12312E-01 | - | - | -0.99953E-01 | 0.56452E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99199E+00 | 0.11417E-01 | - | - | -0.20613E+00 | 0.65676E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.99986E+00 | 0.88736E-02 | - | - | -0.25801E+00 | 0.52118E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10077E+01 | 0.71671E-02 | - | - | -0.28715E+00 | 0.49083E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10128E+01 | 0.66175E-02 | - | - | -0.29695E+00 | 0.46292E-01 |
| 37 | 0.49964E+00 | -0.20015E+00 | 0.10148E+01 | 0.83107E-02 | - | - | -0.31879E+00 | 0.51120E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10099E+01 | 0.11890E-01 | - | - | -0.32995E+00 | 0.48250E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.10020E+01 | 0.73203E-02 | - | - | -0.36428E+00 | 0.50028E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.97423E+00 | 0.10761E-01 | - | - | -0.41080E+00 | 0.54350E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.96328E+00 | 0.12968E-01 | - | - | -0.43107E+00 | 0.46224E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.93777E+00 | 0.15657E-01 | - | - | -0.46201E+00 | 0.50988E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.92211E+00 | 0.14337E-01 | - | - | -0.49383E+00 | 0.51352E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93689E+00 | 0.10247E-01 | - | - | -0.50052E+00 | 0.48496E-01 |

I1 = 0.0752 I2 = 2.6771 I3 = 0.0703 I4 = -2.3594

Lift = 0.4632

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 8 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.93248E+00 | 0.15534E-01 | - | - | 0.20912E-01 | 0.15215E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.91632E+00 | 0.15416E-01 | - | - | 0.37080E-01 | 0.19078E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.90281E+00 | 0.16759E-01 | - | - | 0.85549E-01 | 0.19120E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.92665E+00 | 0.16842E-01 | - | - | 0.14178E+00 | 0.23275E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.98727E+00 | 0.13494E-01 | - | - | 0.15838E+00 | 0.19745E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10353E+01 | 0.11029E-01 | - | - | 0.13435E+00 | 0.15576E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10614E+01 | 0.12008E-01 | - | - | 0.11402E+00 | 0.17467E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10642E+01 | 0.11593E-01 | - | - | 0.12097E+00 | 0.15890E-01 |
| 9 | -0.14076E-01 | 0.20010E+00 | 0.11097E+01 | 0.11289E-01 | - | - | 0.14473E+00 | 0.11513E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11651E+01 | 0.10961E-01 | - | - | 0.12048E+00 | 0.14351E-01 |
| 11 | 0.15745E+00 | 0.20010E+00 | 0.12143E+01 | 0.12086E-01 | - | - | 0.69738E-01 | 0.15075E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12148E+01 | 0.88993E-02 | - | - | 0.45341E-02 | 0.14773E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12051E+01 | 0.83876E-02 | - | - | -0.40914E-01 | 0.13946E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11814E+01 | 0.13076E-01 | - | - | -0.73698E-01 | 0.13890E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11541E+01 | 0.11791E-01 | - | - | -0.96811E-01 | 0.95669E-02 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11269E+01 | 0.83065E-02 | - | - | -0.11095E+00 | 0.12577E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11030E+01 | 0.11551E-01 | - | - | -0.11512E+00 | 0.12917E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10852E+01 | 0.11191E-01 | - | - | -0.11345E+00 | 0.11864E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10647E+01 | 0.95210E-02 | - | - | -0.11276E+00 | 0.15691E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10504E+01 | 0.13755E-01 | - | - | -0.10547E+00 | 0.15231E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10367E+01 | 0.11952E-01 | - | - | -0.10064E+00 | 0.11688E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10312E+01 | 0.11530E-01 | - | - | -0.86176E-01 | 0.13516E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10325E+01 | 0.13039E-01 | - | - | -0.82374E-01 | 0.13879E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10233E+01 | 0.12114E-01 | - | - | -0.94245E-01 | 0.11997E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10133E+01 | 0.13474E-01 | - | - | -0.10692E+00 | 0.10140E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10017E+01 | 0.15313E-01 | - | - | -0.12560E+00 | 0.16541E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.98411E+00 | 0.15382E-01 | - | - | -0.10009E+00 | 0.96534E-02 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98156E+00 | 0.14410E-01 | - | - | -0.59954E-01 | 0.12310E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98747E+00 | 0.14140E-01 | - | - | -0.48892E-01 | 0.76411E-02 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.98852E+00 | 0.12021E-01 | - | - | -0.49621E-01 | 0.96977E-02 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.98266E+00 | 0.94554E-02 | - | - | -0.39832E-01 | 0.92899E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98470E+00 | 0.13222E-01 | - | - | -0.45991E-01 | 0.40831E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.98957E+00 | 0.11842E-01 | - | - | -0.26026E-01 | 0.30743E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10013E+01 | 0.13414E-01 | - | - | -0.20050E-01 | 0.19194E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10086E+01 | 0.11791E-01 | - | - | -0.22995E-01 | 0.23106E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10153E+01 | 0.73473E-02 | - | - | -0.27032E-01 | 0.33046E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10174E+01 | 0.11078E-01 | - | - | -0.51651E-01 | 0.47879E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10112E+01 | 0.13076E-01 | - | - | -0.72726E-01 | 0.47533E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.99962E+00 | 0.12390E-01 | - | - | -0.90124E-01 | 0.47829E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.97975E+00 | 0.15734E-01 | - | - | -0.68892E-01 | 0.13532E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.95819E+00 | 0.15983E-01 | - | - | -0.70115E-01 | 0.10736E-01 |
| 42 | 0.71083E-01 | -0.20015E+00 | 0.92827E+00 | 0.16072E-01 | - | - | -0.45077E-01 | 0.16979E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.92258E+00 | 0.16130E-01 | - | - | -0.18240E-01 | 0.18256E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93159E+00 | 0.14783E-01 | - | - | 0.19846E-01 | 0.19216E-01 |

I1 = 0.0834 I2 = 2.7025 I3 = 0.0740 I4 = -2.3586

Lift = 0.5012

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 9 at y/c = -0.097

| RPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.20003E+00 | 0.93389E+00 | 0.16821E-01 | - | - | 0.17324E-01 | 0.22402E-01 |
| 2 | -0.99708E-01 | -0.13322E+00 | 0.91909E+00 | 0.18032E-01 | - | - | 0.37408E-01 | 0.24687E-01 |
| 3 | -0.99708E-01 | -0.66531E-01 | 0.90776E+00 | 0.18108E-01 | - | - | 0.78189E-01 | 0.20644E-01 |
| 4 | -0.99708E-01 | 0.15778E-03 | 0.93158E+00 | 0.16900E-01 | - | - | 0.12694E+00 | 0.22668E-01 |
| 5 | -0.99708E-01 | 0.66846E-01 | 0.98714E+00 | 0.13281E-01 | - | - | 0.14623E+00 | 0.22837E-01 |
| 6 | -0.99708E-01 | 0.13341E+00 | 0.10335E+01 | 0.13638E-01 | - | - | 0.13321E+00 | 0.21317E-01 |
| 7 | -0.99708E-01 | 0.20010E+00 | 0.10591E+01 | 0.13296E-01 | - | - | 0.11124E+00 | 0.18729E-01 |
| 8 | -0.10019E+00 | 0.20010E+00 | 0.10602E+01 | 0.12916E-01 | - | - | 0.11386E+00 | 0.16447E-01 |
| 9 | -0.14078E-01 | 0.20010E+00 | 0.10979E+01 | 0.17761E-01 | - | - | 0.13367E+00 | 0.17244E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11592E+01 | 0.19886E-01 | - | - | 0.11971E+00 | 0.17926E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.12053E+01 | 0.17165E-01 | - | - | 0.78621E-01 | 0.19085E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12199E+01 | 0.14659E-01 | - | - | 0.19736E-01 | 0.21902E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12061E+01 | 0.11859E-01 | - | - | -0.35803E-01 | 0.17457E-01 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.11801E+01 | 0.11163E-01 | - | - | -0.69793E-01 | 0.15386E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11551E+01 | 0.13329E-01 | - | - | -0.94150E-01 | 0.12913E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11282E+01 | 0.10068E-01 | - | - | -0.11017E+00 | 0.11097E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11050E+01 | 0.11649E-01 | - | - | -0.11603E+00 | 0.10414E-01 |
| 18 | 0.75783E+00 | 0.20010E+00 | 0.10843E+01 | 0.12886E-01 | - | - | -0.11532E+00 | 0.96729E-02 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10650E+01 | 0.11841E-01 | - | - | -0.11442E+00 | 0.96996E-02 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10509E+01 | 0.10487E-01 | - | - | -0.10646E+00 | 0.10394E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10379E+01 | 0.10772E-01 | - | - | -0.10106E+00 | 0.11687E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10325E+01 | 0.10984E-01 | - | - | -0.88100E-01 | 0.14807E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10324E+01 | 0.11689E-01 | - | - | -0.89160E-01 | 0.12834E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10258E+01 | 0.12503E-01 | - | - | -0.95065E-01 | 0.11924E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10137E+01 | 0.11949E-01 | - | - | -0.10989E+00 | 0.10409E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10011E+01 | 0.13811E-01 | - | - | -0.12615E+00 | 0.11873E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98495E+00 | 0.17882E-01 | - | - | -0.10789E+00 | 0.11299E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.97822E+00 | 0.14255E-01 | - | - | -0.56749E-01 | 0.12360E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.98608E+00 | 0.12738E-01 | - | - | -0.48441E-01 | 0.94315E-02 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.98541E+00 | 0.13676E-01 | - | - | -0.48415E-01 | 0.82136E-02 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.98183E+00 | 0.13607E-01 | - | - | -0.36014E-01 | 0.87551E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98466E+00 | 0.15475E-01 | - | - | -0.28717E-01 | 0.13427E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99182E+00 | 0.13897E-01 | - | - | -0.29770E-01 | 0.37324E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.99930E+00 | 0.11542E-01 | - | - | -0.20678E-01 | 0.10185E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10095E+01 | 0.11095E-01 | - | - | -0.26404E-01 | 0.11160E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10150E+01 | 0.14179E-01 | - | - | -0.32683E-01 | 0.13995E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10150E+01 | 0.13961E-01 | - | - | -0.52044E-01 | 0.38323E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10104E+01 | 0.15867E-01 | - | - | -0.60215E-01 | 0.25881E-01 |
| 39 | 0.32834E+00 | -0.20015E+00 | 0.99573E+00 | 0.13777E-01 | - | - | -0.68769E-01 | 0.27631E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.97882E+00 | 0.16136E-01 | - | - | -0.73705E-01 | 0.11631E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.95222E+00 | 0.16160E-01 | - | - | -0.66646E-01 | 0.12433E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.92671E+00 | 0.16563E-01 | - | - | -0.41075E-01 | 0.18251E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.91964E+00 | 0.16392E-01 | - | - | -0.14872E-01 | 0.31316E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.93471E+00 | 0.14432E-01 | - | - | 0.18781E-01 | 0.21302E-01 |

I1 = 0.0786 I2 = 2.6987 I3 = 0.0749 I4 = -2.3550

Lift = 0.4972

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 7 at y/c = -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.93171E+00 | 0.11538E-01 | - | - | 0.25353E-01 | 0.18232E-01 |
| 2 | -0.10007E+00 | -0.13322E+00 | 0.91579E+00 | 0.12607E-01 | - | - | 0.46310E-01 | 0.20433E-01 |
| 3 | -0.10007E+00 | -0.66531E-01 | 0.90340E+00 | 0.10857E-01 | - | - | 0.81150E-01 | 0.17378E-01 |
| 4 | -0.10007E+00 | 0.15778E-03 | 0.93022E+00 | 0.10968E-01 | - | - | 0.14284E+00 | 0.20814E-01 |
| 5 | -0.10007E+00 | 0.66846E-01 | 0.99179E+00 | 0.10657E-01 | - | - | 0.16448E+00 | 0.22344E-01 |
| 6 | -0.10007E+00 | 0.13341E+00 | 0.10397E+01 | 0.86223E-02 | - | - | 0.14625E+00 | 0.15486E-01 |
| 7 | -0.10007E+00 | 0.20010E+00 | 0.10669E+01 | 0.11499E-01 | - | - | 0.12581E+00 | 0.19555E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10693E+01 | 0.73523E-02 | - | - | 0.13944E+00 | 0.16472E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11120E+01 | 0.77588E-02 | - | - | 0.14295E+00 | 0.14697E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11716E+01 | 0.84122E-02 | - | - | 0.12489E+00 | 0.16890E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12118E+01 | 0.13251E-01 | - | - | 0.70195E-01 | 0.16287E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12201E+01 | 0.82261E-02 | - | - | 0.15759E-01 | 0.20876E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12065E+01 | 0.87537E-02 | - | - | -0.34102E-01 | 0.15763E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11827E+01 | 0.11608E-01 | - | - | -0.67490E-01 | 0.17507E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11522E+01 | 0.74070E-02 | - | - | -0.86568E-01 | 0.14100E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11318E+01 | 0.86318E-02 | - | - | -0.10188E+00 | 0.13960E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11052E+01 | 0.83203E-02 | - | - | -0.11105E+00 | 0.12769E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10834E+01 | 0.95068E-02 | - | - | -0.11107E+00 | 0.12968E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10696E+01 | 0.83409E-02 | - | - | -0.10514E+00 | 0.11604E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10512E+01 | 0.99357E-02 | - | - | -0.10172E+00 | 0.14016E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10407E+01 | 0.83134E-02 | - | - | -0.92762E-01 | 0.13866E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10340E+01 | 0.10835E-01 | - | - | -0.77945E-01 | 0.16523E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10334E+01 | 0.99380E-02 | - | - | -0.79913E-01 | 0.15042E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10246E+01 | 0.95479E-02 | - | - | -0.85297E-01 | 0.14049E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10166E+01 | 0.20166E-01 | - | - | -0.98672E-01 | 0.26854E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.99230E+00 | 0.30666E-01 | - | - | -0.13660E+00 | 0.39147E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98498E+00 | 0.16765E-01 | - | - | -0.89288E-01 | 0.18114E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.97937E+00 | 0.11089E-01 | - | - | -0.53993E-01 | 0.11754E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.98699E+00 | 0.92460E-02 | - | - | -0.45860E-01 | 0.12218E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.98597E+00 | 0.71096E-02 | - | - | -0.47477E-01 | 0.83889E-02 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.98066E+00 | 0.81031E-02 | - | - | -0.34131E-01 | 0.16884E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.98427E+00 | 0.67898E-02 | - | - | -0.24045E-01 | 0.38332E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99066E+00 | 0.87529E-02 | - | - | -0.19401E-01 | 0.17413E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.99984E+00 | 0.84155E-02 | - | - | -0.10293E-01 | 0.17790E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10097E+01 | 0.10361E-01 | - | - | -0.13296E-01 | 0.21631E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10167E+01 | 0.76861E-02 | - | - | -0.15060E-01 | 0.30481E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10161E+01 | 0.91003E-02 | - | - | -0.16396E-01 | 0.43799E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10168E+01 | 0.11162E-01 | - | - | -0.10753E-01 | 0.44015E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10025E+01 | 0.11970E-01 | - | - | -0.12016E-01 | 0.43725E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.97906E+00 | 0.13604E-01 | - | - | -0.64967E-01 | 0.16984E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.95229E+00 | 0.14761E-01 | - | - | -0.60527E-01 | 0.14366E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.92840E+00 | 0.12706E-01 | - | - | -0.44069E-01 | 0.15139E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.91770E+00 | 0.15376E-01 | - | - | -0.64500E-02 | 0.17641E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93244E+00 | 0.13594E-01 | - | - | 0.19295E-01 | 0.19117E-01 |

I1 = 0.0082 I2 = 2.7073 I3 = 0.0712 I4 = -2.3565

Lift = 0.5101

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 6 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $s_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.93085E+00 | 0.15504E-01 | - | - | 0.23295E-01 | 0.18325E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.91630E+00 | 0.13437E-01 | - | - | 0.43581E-01 | 0.18624E-01 |
| 3 | -0.10044E+00 | -0.66531E-01 | 0.90743E+00 | 0.13767E-01 | - | - | 0.76326E-01 | 0.15481E-01 |
| 4 | -0.10044E+00 | 0.15778E-03 | 0.93494E+00 | 0.14269E-01 | - | - | 0.13811E+00 | 0.21886E-01 |
| 5 | -0.10044E+00 | 0.66846E-01 | 0.99193E+00 | 0.11440E-01 | - | - | 0.16372E+00 | 0.19941E-01 |
| 6 | -0.10044E+00 | 0.13341E+00 | 0.10407E+01 | 0.10228E-01 | - | - | 0.15268E+00 | 0.17832E-01 |
| 7 | -0.10044E+00 | 0.20010E+00 | 0.10628E+01 | 0.10201E-01 | - | - | 0.11601E+00 | 0.15741E-01 |
| 8 | -0.99830E-01 | 0.20010E+00 | 0.10654E+01 | 0.11339E-01 | - | - | 0.11135E+00 | 0.18438E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11065E+01 | 0.11226E-01 | - | - | 0.13001E+00 | 0.14983E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11679E+01 | 0.10900E-01 | - | - | 0.12323E+00 | 0.13109E-01 |
| 11 | 0.15745E+00 | 0.20010E+00 | 0.12154E+01 | 0.10514E-01 | - | - | 0.79510E-01 | 0.15715E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12192E+01 | 0.90942E-02 | - | - | 0.14471E-01 | 0.14883E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12048E+01 | 0.93578E-02 | - | - | -0.32598E-01 | 0.17916E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11832E+01 | 0.11316E-01 | - | - | -0.68389E-01 | 0.15491E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11553E+01 | 0.85209E-02 | - | - | -0.87801E-01 | 0.14216E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11301E+01 | 0.82864E-02 | - | - | -0.10184E+00 | 0.14037E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11046E+01 | 0.92407E-02 | - | - | -0.11114E+00 | 0.14145E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10855E+01 | 0.10921E-01 | - | - | -0.11300E+00 | 0.11715E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10679E+01 | 0.90570E-02 | - | - | -0.10709E+00 | 0.14887E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10521E+01 | 0.10651E-01 | - | - | -0.97564E-01 | 0.14241E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10400E+01 | 0.10159E-01 | - | - | -0.94285E-01 | 0.22388E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10327E+01 | 0.11481E-01 | - | - | -0.81799E-01 | 0.13398E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10317E+01 | 0.99565E-02 | - | - | -0.79697E-01 | 0.14964E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10263E+01 | 0.12139E-01 | - | - | -0.74727E-01 | 0.14957E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.99011E+00 | 0.47406E-01 | - | - | 0.37989E-02 | 0.87369E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.88725E+00 | 0.65561E-01 | - | - | 0.16775E+00 | 0.98699E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.97073E+00 | 0.32685E-01 | - | - | 0.69320E-01 | 0.89579E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.97901E+00 | 0.99770E-02 | - | - | -0.44609E-01 | 0.11671E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98791E+00 | 0.10418E-01 | - | - | -0.49597E-01 | 0.10075E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.98814E+00 | 0.10802E-01 | - | - | -0.45734E-01 | 0.84405E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98287E+00 | 0.12544E-01 | - | - | -0.39496E-01 | 0.14487E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98207E+00 | 0.11959E-01 | - | - | -0.58359E-01 | 0.44030E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.98850E+00 | 0.11608E-01 | - | - | -0.21840E-01 | 0.20753E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.99825E+00 | 0.99367E-02 | - | - | -0.13863E-01 | 0.17542E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10063E+01 | 0.10878E-01 | - | - | -0.14976E-01 | 0.21160E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10178E+01 | 0.10995E-01 | - | - | -0.28721E-01 | 0.45998E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10123E+01 | 0.91500E-02 | - | - | -0.46765E-01 | 0.48754E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10158E+01 | 0.12946E-01 | - | - | -0.70517E-01 | 0.50386E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.99556E+00 | 0.13626E-01 | - | - | -0.72108E-01 | 0.38347E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.97318E+00 | 0.13042E-01 | - | - | -0.65623E-01 | 0.15111E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.95315E+00 | 0.15408E-01 | - | - | -0.63203E-01 | 0.12257E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.93089E+00 | 0.17350E-01 | - | - | -0.44922E-01 | 0.15982E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.92024E+00 | 0.15602E-01 | - | - | -0.97446E-02 | 0.16024E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93554E+00 | 0.14207E-01 | - | - | 0.86426E-02 | 0.15115E-01 |

I1 = 0.0870 I2 = 2.7058 I3 = -0.0094 I4 = -2.3540

Lift = 0.4294

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 5 at y/c = 0.054

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99587E-01 | -0.20003E+00 | 0.93156E+00 | 0.13908E-01 | - | - | 0.29233E-01 | 0.21811E-01 |
| 2 | -0.99587E-01 | -0.13322E+00 | 0.91389E+00 | 0.15759E-01 | - | - | 0.52214E-01 | 0.21782E-01 |
| 3 | -0.99587E-01 | -0.66531E-01 | 0.90440E+00 | 0.13866E-01 | - | - | 0.95548E-01 | 0.24272E-01 |
| 4 | -0.99587E-01 | 0.15778E-03 | 0.93088E+00 | 0.13904E-01 | - | - | 0.14926E+00 | 0.25904E-01 |
| 5 | -0.99587E-01 | 0.66846E-01 | 0.99428E+00 | 0.11548E-01 | - | - | 0.17183E+00 | 0.25733E-01 |
| 6 | -0.99587E-01 | 0.13341E+00 | 0.10443E+01 | 0.11543E-01 | - | - | 0.15300E+00 | 0.23934E-01 |
| 7 | -0.99587E-01 | 0.20010E+00 | 0.10676E+01 | 0.10711E-01 | - | - | 0.12338E+00 | 0.19297E-01 |
| 8 | -0.10019E+00 | 0.20010E+00 | 0.10691E+01 | 0.12284E-01 | - | - | 0.13287E+00 | 0.20907E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11142E+01 | 0.12955E-01 | - | - | 0.14893E+00 | 0.20075E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11741E+01 | 0.13806E-01 | - | - | 0.12665E+00 | 0.20161E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12176E+01 | 0.10391E-01 | - | - | 0.76974E-01 | 0.21215E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12240E+01 | 0.79688E-02 | - | - | 0.21187E-01 | 0.17157E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12060E+01 | 0.86408E-02 | - | - | -0.34093E-01 | 0.20586E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11834E+01 | 0.80481E-02 | - | - | -0.56474E-01 | 0.19420E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11553E+01 | 0.10588E-01 | - | - | -0.84720E-01 | 0.17343E-01 |
| 16 | 0.58613E+00 | 0.20010E+00 | 0.11283E+01 | 0.78174E-02 | - | - | -0.95892E-01 | 0.19054E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11055E+01 | 0.95914E-02 | - | - | -0.11232E+00 | 0.15004E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10832E+01 | 0.75005E-02 | - | - | -0.10547E+00 | 0.17912E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10679E+01 | 0.10157E-01 | - | - | -0.10028E+00 | 0.17607E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10531E+01 | 0.79361E-02 | - | - | -0.10093E+00 | 0.17344E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10402E+01 | 0.11191E-01 | - | - | -0.87308E-01 | 0.18402E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10306E+01 | 0.69878E-02 | - | - | -0.77554E-01 | 0.18220E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10318E+01 | 0.89069E-02 | - | - | -0.76904E-01 | 0.17598E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10240E+01 | 0.11927E-01 | - | - | -0.72016E-01 | 0.19606E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.97125E+00 | 0.52229E-01 | - | - | -0.68555E-01 | 0.56971E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.84523E+00 | 0.65909E-01 | - | - | -0.63807E-01 | 0.80470E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.93755E+00 | 0.42164E-01 | - | - | -0.83845E-01 | 0.41815E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98458E+00 | 0.12148E-01 | - | - | -0.59285E-01 | 0.14588E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98961E+00 | 0.10063E-01 | - | - | -0.50171E-01 | 0.11262E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.98654E+00 | 0.10866E-01 | - | - | -0.49117E-01 | 0.13255E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.97867E+00 | 0.10506E-01 | - | - | -0.40508E-01 | 0.11941E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.97845E+00 | 0.12781E-01 | - | - | -0.24769E-01 | 0.16148E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.98824E+00 | 0.11867E-01 | - | - | -0.13378E-01 | 0.17729E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.99941E+00 | 0.10531E-01 | - | - | -0.97273E-02 | 0.19293E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10096E+01 | 0.95730E-02 | - | - | -0.12423E-01 | 0.16798E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10137E+01 | 0.12274E-01 | - | - | -0.12301E-01 | 0.29900E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10136E+01 | 0.93332E-02 | - | - | -0.16662E-01 | 0.35478E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20015E+00 | 0.10061E+01 | 0.12470E-01 | - | - | -0.17380E-01 | 0.50024E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.99612E+00 | 0.10704E-01 | - | - | -0.31269E-01 | 0.48834E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.97449E+00 | 0.12718E-01 | - | - | -0.63481E-01 | 0.17206E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.94930E+00 | 0.15831E-01 | - | - | -0.61679E-01 | 0.14343E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.92537E+00 | 0.16096E-01 | - | - | -0.37324E-01 | 0.17347E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.91800E+00 | 0.16022E-01 | - | - | -0.54651E-02 | 0.19248E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.93175E+00 | 0.12752E-01 | - | - | 0.22243E-01 | 0.15174E-01 |

I1 = 0.0936 I2 = 2.7096 I3 = 0.0539 I4 = -2.3501

Lift = 0.5069

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 4 at y/c = 0.104

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20003E+00 | 0.93522E+00 | 0.18093E-01 | - | - | 0.22762E-01 | 0.12387E-01 |
| 2 | -0.10007E+00 | -0.13322E+00 | 0.91418E+00 | 0.14564E-01 | - | - | 0.51892E-01 | 0.15315E-01 |
| 3 | -0.10007E+00 | -0.66531E-01 | 0.90958E+00 | 0.18807E-01 | - | - | 0.90520E-01 | 0.23650E-01 |
| 4 | -0.10007E+00 | 0.15778E-03 | 0.93615E+00 | 0.15075E-01 | - | - | 0.15304E+00 | 0.25171E-01 |
| 5 | -0.10007E+00 | 0.66846E-01 | 0.99478E+00 | 0.13203E-01 | - | - | 0.16281E+00 | 0.23396E-01 |
| 6 | -0.10007E+00 | 0.13341E+00 | 0.10431E+01 | 0.12148E-01 | - | - | 0.14953E+00 | 0.21854E-01 |
| 7 | -0.10007E+00 | 0.20010E+00 | 0.10679E+01 | 0.95977E-02 | - | - | 0.12361E+00 | 0.16614E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10698E+01 | 0.12579E-01 | - | - | 0.12688E+00 | 0.19383E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11108E+01 | 0.13571E-01 | - | - | 0.14436E+00 | 0.17821E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11678E+01 | 0.14240E-01 | - | - | 0.11365E+00 | 0.12767E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12141E+01 | 0.11186E-01 | - | - | 0.73488E-01 | 0.18574E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12297E+01 | 0.11721E-01 | - | - | 0.15277E-01 | 0.15765E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12059E+01 | 0.93663E-02 | - | - | -0.39013E-01 | 0.15640E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11853E+01 | 0.12555E-01 | - | - | -0.73024E-01 | 0.15378E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11551E+01 | 0.10548E-01 | - | - | -0.95525E-01 | 0.16106E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11301E+01 | 0.10038E-01 | - | - | -0.10761E+00 | 0.12617E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11102E+01 | 0.11204E-01 | - | - | -0.11164E+00 | 0.17414E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10895E+01 | 0.10967E-01 | - | - | -0.11356E+00 | 0.11512E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10689E+01 | 0.11677E-01 | - | - | -0.10952E+00 | 0.14979E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10555E+01 | 0.10777E-01 | - | - | -0.10215E+00 | 0.19365E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10439E+01 | 0.14305E-01 | - | - | -0.97668E-01 | 0.24981E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10327E+01 | 0.11598E-01 | - | - | -0.80932E-01 | 0.17731E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10328E+01 | 0.13623E-01 | - | - | -0.85708E-01 | 0.16875E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10259E+01 | 0.13773E-01 | - | - | -0.85361E-01 | 0.14221E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10095E+01 | 0.33153E-01 | - | - | -0.99743E-01 | 0.29892E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.94835E+00 | 0.60518E-01 | - | - | -0.14257E+00 | 0.47551E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.98214E+00 | 0.30120E-01 | - | - | -0.11835E+00 | 0.25972E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98575E+00 | 0.14126E-01 | - | - | -0.69853E-01 | 0.15835E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98924E+00 | 0.12732E-01 | - | - | -0.58737E-01 | 0.10008E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.98876E+00 | 0.14501E-01 | - | - | -0.54186E-01 | 0.88595E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98159E+00 | 0.13274E-01 | - | - | -0.48369E-01 | 0.12936E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.97875E+00 | 0.12877E-01 | - | - | -0.48463E-01 | 0.42053E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.98792E+00 | 0.10482E-01 | - | - | -0.30401E-01 | 0.27467E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10004E+01 | 0.12519E-01 | - | - | -0.21417E-01 | 0.30197E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10095E+01 | 0.10899E-01 | - | - | -0.18509E-01 | 0.20413E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10133E+01 | 0.12163E-01 | - | - | -0.29347E-01 | 0.40539E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10185E+01 | 0.14086E-01 | - | - | -0.42804E-01 | 0.46255E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10090E+01 | 0.14447E-01 | - | - | -0.74468E-01 | 0.47288E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.10016E+01 | 0.15623E-01 | - | - | -0.80091E-01 | 0.35566E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.98115E+00 | 0.16449E-01 | - | - | -0.74091E-01 | 0.11839E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.95424E+00 | 0.16900E-01 | - | - | -0.68620E-01 | 0.12706E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.92701E+00 | 0.17496E-01 | - | - | -0.43663E-01 | 0.15450E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.91894E+00 | 0.16266E-01 | - | - | -0.10236E-01 | 0.20340E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93328E+00 | 0.16250E-01 | - | - | 0.21838E-01 | 0.17080E-01 |

I1 = 0.0920 I2 = 2.7117 I3 = 0.0787 I4 = -2.3560

Lift = 0.5265

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.93199E+00 | 0.16599E-01 | - | - | 0.24481E-01 | 0.20775E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.91373E+00 | 0.16793E-01 | - | - | 0.56909E-01 | 0.22885E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.90709E+00 | 0.15870E-01 | - | - | 0.10918E+00 | 0.18567E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.94036E+00 | 0.13940E-01 | - | - | 0.16418E+00 | 0.25526E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.10048E+01 | 0.13708E-01 | - | - | 0.17578E+00 | 0.23841E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10522E+01 | 0.13087E-01 | - | - | 0.15500E+00 | 0.17560E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10779E+01 | 0.11459E-01 | - | - | 0.12661E+00 | 0.19694E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10782E+01 | 0.12963E-01 | - | - | 0.12628E+00 | 0.20196E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.11219E+01 | 0.11431E-01 | - | - | 0.13645E+00 | 0.17078E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11913E+01 | 0.12314E-01 | - | - | 0.12907E+00 | 0.19568E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12272E+01 | 0.13305E-01 | - | - | 0.70181E-01 | 0.19943E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12368E+01 | 0.11627E-01 | - | - | 0.22340E-02 | 0.20825E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12191E+01 | 0.11774E-01 | - | - | -0.44417E-01 | 0.26214E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11910E+01 | 0.10273E-01 | - | - | -0.67528E-01 | 0.30335E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11669E+01 | 0.11628E-01 | - | - | -0.97626E-01 | 0.28954E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11385E+01 | 0.10991E-01 | - | - | -0.11895E+00 | 0.18460E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11133E+01 | 0.90428E-02 | - | - | -0.12369E+00 | 0.39753E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10933E+01 | 0.11382E-01 | - | - | -0.12453E+00 | 0.14537E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10747E+01 | 0.11767E-01 | - | - | -0.12188E+00 | 0.32745E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10571E+01 | 0.14143E-01 | - | - | -0.12349E+00 | 0.44898E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10464E+01 | 0.13137E-01 | - | - | -0.13629E+00 | 0.49131E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10383E+01 | 0.13285E-01 | - | - | -0.11142E+00 | 0.36293E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10375E+01 | 0.13869E-01 | - | - | -0.98095E-01 | 0.35970E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10292E+01 | 0.13799E-01 | - | - | -0.97254E-01 | 0.13946E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10176E+01 | 0.12739E-01 | - | - | -0.10385E+00 | 0.34131E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10059E+01 | 0.13643E-01 | - | - | -0.10264E+00 | 0.14128E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99097E+00 | 0.13959E-01 | - | - | -0.95769E-01 | 0.14370E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98505E+00 | 0.17222E-01 | - | - | -0.71660E-01 | 0.24065E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.98884E+00 | 0.10736E-01 | - | - | -0.56634E-01 | 0.15346E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.98552E+00 | 0.11825E-01 | - | - | -0.58782E-01 | 0.11030E-01 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.97964E+00 | 0.11129E-01 | - | - | -0.47298E-01 | 0.12343E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.98149E+00 | 0.13760E-01 | - | - | -0.36896E-01 | 0.22348E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.99061E+00 | 0.10684E-01 | - | - | -0.29049E-01 | 0.19479E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10032E+01 | 0.10104E-01 | - | - | -0.24612E-01 | 0.22848E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10117E+01 | 0.11901E-01 | - | - | -0.24193E-01 | 0.27562E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10144E+01 | 0.12073E-01 | - | - | -0.38491E-01 | 0.44462E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10176E+01 | 0.12377E-01 | - | - | -0.50084E-01 | 0.39772E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10049E+01 | 0.13325E-01 | - | - | -0.58398E-01 | 0.29700E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.99518E+00 | 0.13608E-01 | - | - | -0.72204E-01 | 0.14616E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.96965E+00 | 0.15678E-01 | - | - | -0.79475E-01 | 0.13156E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.94206E+00 | 0.15365E-01 | - | - | -0.71590E-01 | 0.11593E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.91247E+00 | 0.16404E-01 | - | - | -0.39611E-01 | 0.15250E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.90966E+00 | 0.14243E-01 | - | - | -0.60112E-02 | 0.16468E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.92770E+00 | 0.11243E-01 | - | - | 0.21437E-01 | 0.15116E-01 |

I1 = 0.0989 I2 = 2.7320 I3 = 0.07?) I4 = -2.3469

Lift = 0.5569

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 3 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.92854E+00 | 0.13525E-01 | - | - | 0.31981E-01 | 0.17969E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.91226E+00 | 0.15410E-01 | - | - | 0.54021E-01 | 0.20419E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.90301E+00 | 0.15267E-01 | - | - | 0.99445E-01 | 0.18908E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.93501E+00 | 0.11004E-01 | - | - | 0.16245E+00 | 0.23569E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.10048E+01 | 0.11209E-01 | - | - | 0.18101E+00 | 0.23547E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10543E+01 | 0.10945E-01 | - | - | 0.15942E+00 | 0.23192E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10815E+01 | 0.10506E-01 | - | - | 0.13101E+00 | 0.19149E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10803E+01 | 0.97065E-02 | - | - | 0.13306E+00 | 0.16813E-01 |
| 9 | -0.13949E-01 | 0.20010E+00 | 0.11274E+01 | 0.13040E-01 | - | - | 0.14051E+00 | 0.18393E-01 |
| 10 | 0.71811E-01 | 0.20010E+00 | 0.11923E+01 | 0.12735E-01 | - | - | 0.11959E+00 | 0.15308E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12344E+01 | 0.13092E-01 | - | - | 0.60025E-01 | 0.16115E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12368E+01 | 0.12927E-01 | - | - | -0.31299E-03 | 0.15870E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.12188E+01 | 0.10833E-01 | - | - | -0.52114E-01 | 0.15794E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11931E+01 | 0.98757E-02 | - | - | -0.84015E-01 | 0.16909E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11604E+01 | 0.82198E-02 | - | - | -0.10502E+00 | 0.21047E-01 |
| 16 | 0.58613E+00 | 0.20010E+00 | 0.11368E+01 | 0.74600E-02 | - | - | -0.11944E+00 | 0.14874E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11157E+01 | 0.10854E-01 | - | - | -0.12423E+00 | 0.14242E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10908E+01 | 0.10237E-01 | - | - | -0.12363E+00 | 0.18348E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10722E+01 | 0.98470E-02 | - | - | -0.12072E+00 | 0.21696E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10566E+01 | 0.92272E-02 | - | - | -0.11320E+00 | 0.15427E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10453E+01 | 0.10308E-01 | - | - | -0.10494E+00 | 0.15308E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10393E+01 | 0.10454E-01 | - | - | -0.94048E-01 | 0.20529E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10374E+01 | 0.13213E-01 | - | - | -0.90342E-01 | 0.18774E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10277E+01 | 0.10663E-01 | - | - | -0.97090E-01 | 0.13193E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10165E+01 | 0.10225E-01 | - | - | -0.99789E-01 | 0.16711E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10057E+01 | 0.10420E-01 | - | - | -0.10185E+00 | 0.13447E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99151E+00 | 0.11914E-01 | - | - | -0.96247E-01 | 0.15364E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98560E+00 | 0.14392E-01 | - | - | -0.71113E-01 | 0.19048E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.99106E+00 | 0.10465E-01 | - | - | -0.60369E-01 | 0.10977E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.99104E+00 | 0.10731E-01 | - | - | -0.59771E-01 | 0.11194E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98171E+00 | 0.11466E-01 | - | - | -0.49393E-01 | 0.12270E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98295E+00 | 0.11586E-01 | - | - | -0.34799E-01 | 0.20954E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99184E+00 | 0.96200E-02 | - | - | -0.26125E-01 | 0.14659E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10016E+01 | 0.10109E-01 | - | - | -0.20333E-01 | 0.17090E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10121E+01 | 0.10115E-01 | - | - | -0.26577E-01 | 0.16267E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10159E+01 | 0.11303E-01 | - | - | -0.34469E-01 | 0.14163E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10169E+01 | 0.97000E-02 | - | - | -0.48868E-01 | 0.20515E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10129E+01 | 0.12508E-01 | - | - | -0.60712E-01 | 0.30039E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.99619E+00 | 0.14212E-01 | - | - | -0.72796E-01 | 0.12218E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.97178E+00 | 0.14963E-01 | - | - | -0.77249E-01 | 0.15482E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.94388E+00 | 0.15821E-01 | - | - | -0.74146E-01 | 0.13332E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.92041E+00 | 0.13637E-01 | - | - | -0.46555E-01 | 0.18502E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.91022E+00 | 0.15736E-01 | - | - | 0.19904E-02 | 0.22213E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.93049E+00 | 0.14700E-01 | - | - | 0.23270E-01 | 0.18357E-01 |

I1 = 0.0990 I2 = 2.7331 I3 = 0.0721 I4 = -2.3511

Lift = 0.5531

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.94372E+00 | 0.28963E-01 | - | - | 0.24850E-01 | 0.16794E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.91811E+00 | 0.22470E-01 | - | - | 0.57364E-01 | 0.17811E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.90658E+00 | 0.16369E-01 | - | - | 0.11123E+00 | 0.23013E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.94385E+00 | 0.15670E-01 | - | - | 0.16534E+00 | 0.23613E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.10149E+01 | 0.16096E-01 | - | - | 0.18104E+00 | 0.20993E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10640E+01 | 0.13173E-01 | - | - | 0.16354E+00 | 0.23087E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10877E+01 | 0.12974E-01 | - | - | 0.13035E+00 | 0.20802E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10861E+01 | 0.13758E-01 | - | - | 0.12742E+00 | 0.20984E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11327E+01 | 0.13125E-01 | - | - | 0.14106E+00 | 0.18551E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11976E+01 | 0.14444E-01 | - | - | 0.11901E+00 | 0.18204E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12403E+01 | 0.11534E-01 | - | - | 0.63116E-01 | 0.21618E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12466E+01 | 0.72730E-02 | - | - | 0.97512E-02 | 0.24481E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12249E+01 | 0.12953E-01 | - | - | -0.27801E-01 | 0.42106E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.12014E+01 | 0.12338E-01 | - | - | -0.80244E-01 | 0.20568E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11744E+01 | 0.13731E-01 | - | - | -0.10308E+00 | 0.40971E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11474E+01 | 0.15709E-01 | - | - | -0.11387E+00 | 0.38405E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11230E+01 | 0.14867E-01 | - | - | -0.12820E+00 | 0.52682E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.11006E+01 | 0.12507E-01 | - | - | -0.12545E+00 | 0.21590E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10789E+01 | 0.14650E-01 | - | - | -0.13834E+00 | 0.51522E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10640E+01 | 0.16552E-01 | - | - | -0.15095E+00 | 0.51481E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10786E+01 | 0.40298E-01 | - | - | -0.14076E+00 | 0.47764E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10472E+01 | 0.20034E-01 | - | - | -0.97140E-01 | 0.24945E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10432E+01 | 0.17014E-01 | - | - | -0.93445E-01 | 0.23992E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10381E+01 | 0.19709E-01 | - | - | -0.95142E-01 | 0.95566E-02 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10223E+01 | 0.11720E-01 | - | - | -0.98982E-01 | 0.79188E-02 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10105E+01 | 0.13384E-01 | - | - | -0.97328E-01 | 0.95800E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99454E+00 | 0.13127E-01 | - | - | -0.92654E-01 | 0.85674E-02 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.98851E+00 | 0.19335E-01 | - | - | -0.63118E-01 | 0.18023E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.99356E+00 | 0.13214E-01 | - | - | -0.55226E-01 | 0.77138E-02 |
| 30 | 0.10997E+01 | -0.20015E+00 | 0.99526E+00 | 0.13250E-01 | - | - | -0.54542E-01 | 0.91079E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98670E+00 | 0.12673E-01 | - | - | -0.44000E-01 | 0.85313E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.98754E+00 | 0.14374E-01 | - | - | -0.29675E-01 | 0.91167E-02 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.99827E+00 | 0.13849E-01 | - | - | -0.22757E-01 | 0.11828E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10094E+01 | 0.15818E-01 | - | - | -0.21617E-01 | 0.14144E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10172E+01 | 0.13809E-01 | - | - | -0.29116E-01 | 0.13022E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10196E+01 | 0.13031E-01 | - | - | -0.38003E-01 | 0.83855E-02 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10174E+01 | 0.12994E-01 | - | - | -0.49765E-01 | 0.24178E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10124E+01 | 0.15098E-01 | - | - | -0.63542E-01 | 0.44817E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.99688E+00 | 0.16651E-01 | - | - | -0.81900E-01 | 0.33574E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.97472E+00 | 0.17315E-01 | - | - | -0.80701E-01 | 0.18824E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.93785E+00 | 0.16188E-01 | - | - | -0.74565E-01 | 0.38512E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.91612E+00 | 0.17184E-01 | - | - | -0.41397E-01 | 0.18682E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.90985E+00 | 0.17428E-01 | - | - | -0.20889E-01 | 0.41967E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.94284E+00 | 0.32295E-01 | - | - | 0.29322E-05 | 0.45837E-01 |

I1 = 0.1015 I2 = 2.7577 I3 = 0.0691 I4 = -2.3562

Lift = 0.5721

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 14 at y/c = -1.493

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10180E+01 | 0.81659E-02 | - | - | 0.25975E-01 | 0.18702E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10204E+01 | 0.77688E-02 | - | - | 0.18206E-01 | 0.10569E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.10191E+01 | 0.72181E-02 | - | - | 0.15862E-01 | 0.13111E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.10201E+01 | 0.76119E-02 | - | - | 0.24540E-01 | 0.15592E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.10213E+01 | 0.73373E-02 | - | - | 0.31538E-01 | 0.14067E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.10357E+01 | 0.34360E-01 | - | - | 0.26641E-01 | 0.13545E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.10222E+01 | 0.56829E-02 | - | - | 0.23761E-01 | 0.15230E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10242E+01 | 0.78351E-02 | - | - | 0.26668E-01 | 0.13174E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10219E+01 | 0.66770E-02 | - | - | 0.31653E-01 | 0.12439E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10268E+01 | 0.69032E-02 | - | - | 0.30698E-01 | 0.11798E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10246E+01 | 0.77373E-02 | - | - | 0.16698E-01 | 0.13954E-01 |
| 12 | -0.99465E-01 | 0.20010E+00 | 0.10252E+01 | 0.56342E-02 | - | - | 0.25611E-01 | 0.15422E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10252E+01 | 0.57094E-02 | - | - | 0.21781E-01 | 0.12187E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10265E+01 | 0.63649E-02 | - | - | 0.34300E-01 | 0.16199E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10317E+01 | 0.65809E-02 | - | - | 0.31411E-01 | 0.19691E-01 |
| 16 | 0.24321E+00 | 0.20010E+00 | 0.10340E+01 | 0.69491E-02 | - | - | 0.35816E-01 | 0.18939E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.10364E+01 | 0.63425E-02 | - | - | 0.33788E-01 | 0.18900E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.10411E+01 | 0.65932E-02 | - | - | 0.29039E-01 | 0.13463E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.10474E+01 | 0.72269E-02 | - | - | 0.40785E-01 | 0.12621E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10494E+01 | 0.64299E-02 | - | - | 0.38264E-01 | 0.10729E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10553E+01 | 0.81510E-02 | - | - | 0.38464E-01 | 0.14720E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10550E+01 | 0.64323E-02 | - | - | 0.32593E-01 | 0.13550E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10482E+01 | 0.76553E-02 | - | - | 0.22938E-01 | 0.12750E-01 |
| 24 | 0.92880E+00 | 0.20010E+00 | 0.10420E+01 | 0.68830E-02 | - | - | 0.14294E-01 | 0.12908E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10326E+01 | 0.84177E-02 | - | - | 0.12185E-01 | 0.13261E-01 |
| 26 | 0.11003E+01 | 0.20010E+00 | 0.10292E+01 | 0.71990E-02 | - | - | 0.16225E-01 | 0.14508E-01 |
| 27 | 0.11003E+01 | 0.19998E+00 | 0.10296E+01 | 0.64952E-02 | - | - | 0.26492E-01 | 0.14441E-01 |
| 28 | 0.11003E+01 | 0.15989E+00 | 0.10281E+01 | 0.86031E-02 | - | - | 0.22936E-01 | 0.15332E-01 |
| 29 | 0.11003E+01 | 0.11993E+00 | 0.10233E+01 | 0.73099E-02 | - | - | 0.31611E-01 | 0.12246E-01 |
| 30 | 0.11003E+01 | 0.79844E-01 | 0.10209E+01 | 0.60960E-02 | - | - | 0.24140E-01 | 0.12324E-01 |
| 31 | 0.11003E+01 | 0.39880E-01 | 0.10154E+01 | 0.67982E-02 | - | - | 0.44541E-01 | 0.19719E-01 |
| 32 | 0.11003E+01 | -0.85220E-04 | 0.10049E+01 | 0.86270E-02 | - | - | 0.10885E+00 | 0.37358E-01 |
| 33 | 0.11003E+01 | -0.40171E-01 | 0.10075E+01 | 0.15111E-01 | - | - | 0.21304E+00 | 0.33902E-01 |
| 34 | 0.11003E+01 | -0.80136E-01 | 0.10143E+01 | 0.73789E-02 | - | - | 0.84905E-01 | 0.19947E-01 |
| 35 | 0.11003E+01 | -0.12010E+00 | 0.10154E+01 | 0.61615E-02 | - | - | 0.64115E-01 | 0.13189E-01 |
| 36 | 0.11003E+01 | -0.16007E+00 | 0.10165E+01 | 0.91550E-02 | - | - | 0.53219E-01 | 0.13698E-01 |
| 37 | 0.11003E+01 | -0.20015E+00 | 0.10183E+01 | 0.74283E-02 | - | - | 0.43271E-01 | 0.14262E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10197E+01 | 0.76267E-02 | - | - | 0.43321E-01 | 0.12265E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.10202E+01 | 0.61780E-02 | - | - | 0.50604E-01 | 0.10572E-01 |
| 40 | 0.92820E+00 | -0.20015E+00 | 0.10264E+01 | 0.57082E-02 | - | - | 0.33619E-01 | 0.46094E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10344E+01 | 0.78825E-02 | - | - | 0.16666E-01 | 0.51606E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10362E+01 | 0.66316E-02 | - | - | -0.61974E-03 | 0.45830E-01 |
| 43 | 0.67104E+00 | -0.20015E+00 | 0.10296E+01 | 0.68724E-02 | - | - | -0.21102E-02 | 0.43097E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10221E+01 | 0.68115E-02 | - | - | -0.16838E-01 | 0.51180E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.10238E+01 | 0.72900E-02 | - | - | -0.42798E-01 | 0.58274E-01 |
| 46 | 0.41388E+00 | -0.20015E+00 | 0.10198E+01 | 0.60788E-02 | - | - | -0.53095E-01 | 0.59414E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10207E+01 | 0.64399E-02 | - | - | -0.76471E-01 | 0.47472E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10217E+01 | 0.60898E-02 | - | - | 0.15443E-01 | 0.13576E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10179E+01 | 0.72466E-02 | - | - | 0.15589E-01 | 0.14821E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10164E+01 | 0.91793E-02 | - | - | 0.25676E-01 | 0.20807E-01 |
| 51 | -0.14677E-01 | -0.20015E+00 | 0.10187E+01 | 0.69002E-02 | - | - | 0.23162E-01 | 0.15141E-01 |
| 52 | -0.10032E+00 | -0.20015E+00 | 0.10178E+01 | 0.71897E-02 | - | - | 0.25072E-01 | 0.11332E-01 |

I1 = 0.0201 I2 = 2.4947 I3 = -0.0521 I4 = -2.4562

Lift = 0.0066

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 13 at y/c = -1.473

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10181E+01 | 0.69155E-02 | - | - | 0.26822E-01 | 0.17759E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.10188E+01 | 0.75137E-02 | - | - | 0.22709E-01 | 0.16404E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.10197E+01 | 0.97951E-02 | - | - | 0.26112E-01 | 0.17310E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.10185E+01 | 0.61274E-02 | - | - | 0.19325E-01 | 0.12193E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.10207E+01 | 0.80314E-02 | - | - | 0.15493E-01 | 0.11466E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.10312E+01 | 0.25572E-01 | - | - | 0.26466E-01 | 0.17313E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.10226E+01 | 0.68087E-02 | - | - | 0.28411E-01 | 0.13111E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.10238E+01 | 0.86584E-02 | - | - | 0.32292E-01 | 0.18528E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10255E+01 | 0.68883E-02 | - | - | 0.25242E-01 | 0.17246E-01 |
| 10 | -0.10032E+00 | 0.16026E+00 | 0.10257E+01 | 0.75498E-02 | - | - | 0.25815E-01 | 0.16276E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10258E+01 | 0.68653E-02 | - | - | 0.32709E-01 | 0.19258E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10270E+01 | 0.69388E-02 | - | - | 0.19903E-01 | 0.12695E-01 |
| 13 | -0.13949E-01 | 0.20010E+00 | 0.10285E+01 | 0.66006E-02 | - | - | 0.35093E-01 | 0.16491E-01 |
| 14 | 0.71811E-01 | 0.20010E+00 | 0.10289E+01 | 0.73725E-02 | - | - | 0.34051E-01 | 0.21510E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.10331E+01 | 0.94365E-02 | - | - | 0.44593E-01 | 0.22130E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.10330E+01 | 0.85487E-02 | - | - | 0.31422E-01 | 0.25498E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.10379E+01 | 0.60465E-02 | - | - | 0.42582E-01 | 0.27582E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.10416E+01 | 0.68368E-02 | - | - | 0.40052E-01 | 0.16965E-01 |
| 19 | 0.50037E+00 | 0.20010E+00 | 0.10494E+01 | 0.77099E-02 | - | - | 0.46854E-01 | 0.17287E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10528E+01 | 0.62900E-02 | - | - | 0.42450E-01 | 0.15317E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10567E+01 | 0.85004E-02 | - | - | 0.33781E-01 | 0.14468E-01 |
| 22 | 0.75753E+00 | 0.20010E+00 | 0.10577E+01 | 0.88362E-02 | - | - | 0.26891E-01 | 0.13894E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10507E+01 | 0.64731E-02 | - | - | 0.11468E-01 | 0.14324E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10416E+01 | 0.75763E-02 | - | - | 0.14323E-01 | 0.18205E-01 |
| 25 | 0.10144E+01 | 0.20010E+00 | 0.10359E+01 | 0.83494E-02 | - | - | 0.11185E-01 | 0.13797E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10300E+01 | 0.68441E-02 | - | - | 0.18269E-01 | 0.16305E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10278E+01 | 0.76519E-02 | - | - | 0.13902E-01 | 0.20043E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10267E+01 | 0.76157E-02 | - | - | 0.22258E-01 | 0.20051E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10222E+01 | 0.86441E-02 | - | - | 0.20175E-01 | 0.17487E-01 |
| 30 | 0.11002E+01 | 0.79844E-01 | 0.10198E+01 | 0.76742E-02 | - | - | 0.26212E-01 | 0.17519E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.10137E+01 | 0.78569E-02 | - | - | 0.36791E-01 | 0.18802E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.10066E+01 | 0.84770E-02 | - | - | 0.25221E-01 | 0.22391E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.96683E+00 | 0.40399E-01 | - | - | -0.20871E-01 | 0.65617E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.10130E+01 | 0.75350E-02 | - | - | 0.51960E-01 | 0.19709E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.10147E+01 | 0.84156E-02 | - | - | 0.54710E-01 | 0.17005E-01 |
| 36 | 0.11002E+01 | -0.16007E+00 | 0.10165E+01 | 0.81700E-02 | - | - | 0.46226E-01 | 0.15570E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.10165E+01 | 0.76369E-02 | - | - | 0.42133E-01 | 0.14444E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20015E+00 | 0.10181E+01 | 0.78966E-02 | - | - | 0.43013E-01 | 0.18600E-01 |
| 39 | 0.10140E+01 | -0.20015E+00 | 0.10191E+01 | 0.62662E-02 | - | - | 0.52908E-01 | 0.15438E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.10250E+01 | 0.98151E-02 | - | - | 0.55907E-01 | 0.44250E-01 |
| 41 | 0.84244E+00 | -0.20015E+00 | 0.10323E+01 | 0.70250E-02 | - | - | 0.44739E-01 | 0.44395E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10396E+01 | 0.76961E-02 | - | - | 0.17448E-02 | 0.51215E-01 |
| 43 | 0.67116E+00 | -0.20015E+00 | 0.10337E+01 | 0.80596E-02 | - | - | -0.12047E-01 | 0.57632E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10242E+01 | 0.82483E-02 | - | - | -0.21202E-01 | 0.45439E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10204E+01 | 0.61866E-02 | - | - | -0.37605E-01 | 0.54293E-01 |
| 46 | 0.41400E+00 | -0.20015E+00 | 0.10192E+01 | 0.68872E-02 | - | - | -0.54205E-01 | 0.44290E-01 |
| 47 | 0.32848E+00 | -0.20015E+00 | 0.10220E+01 | 0.83406E-02 | - | - | -0.62817E-01 | 0.45677E-01 |
| 48 | 0.24272E+00 | -0.20015E+00 | 0.10166E+01 | 0.70177E-02 | - | - | -0.44657E-01 | 0.51320E-01 |
| 49 | 0.15672E+00 | -0.20015E+00 | 0.10214E+01 | 0.93869E-02 | - | - | 0.63338E-02 | 0.28912E-01 |
| 50 | 0.71083E-01 | -0.20015E+00 | 0.10188E+01 | 0.91944E-02 | - | - | 0.86940E-02 | 0.42633E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.10187E+01 | 0.82561E-02 | - | - | 0.30232E-01 | 0.15749E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.10189E+01 | 0.63926E-02 | - | - | 0.26228E-01 | 0.16954E-01 |

I1 = 0.0202 I2 = 2.4992 I3 = -0.0247 I4 = -2.4568

Lift = 0.0379

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 12 at y/c = -1.452

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10189E+01 | 0.65625E-02 | - | - | 0.15650E-01 | 0.19759E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10201E+01 | 0.85362E-02 | - | - | 0.21455E-01 | 0.17318E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.10206E+01 | 0.87142E-02 | - | - | 0.21414E-01 | 0.18591E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.10206E+01 | 0.89601E-02 | - | - | 0.20141E-01 | 0.16851E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.10193E+01 | 0.80646E-02 | - | - | 0.25545E-01 | 0.19720E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.10254E+01 | 0.21306E-01 | - | - | 0.21768E-01 | 0.18814E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.10217E+01 | 0.83739E-02 | - | - | 0.31281E-01 | 0.18844E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10246E+01 | 0.82866E-02 | - | - | 0.23480E-01 | 0.17858E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10254E+01 | 0.70861E-02 | - | - | 0.25001E-01 | 0.18609E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10249E+01 | 0.85597E-02 | - | - | 0.26658E-01 | 0.18960E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10256E+01 | 0.72385E-02 | - | - | 0.31262E-01 | 0.17541E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10276E+01 | 0.77104E-02 | - | - | 0.29647E-01 | 0.20834E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10242E+01 | 0.95470E-02 | - | - | 0.26979E-01 | 0.15298E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10276E+01 | 0.90343E-02 | - | - | 0.27081E-01 | 0.19964E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10313E+01 | 0.87647E-02 | - | - | 0.41405E-01 | 0.29069E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.10325E+01 | 0.76813E-02 | - | - | 0.35069E-01 | 0.23441E-01 |
| 17 | 0.32897E+00 | 0.20010E+00 | 0.10384E+01 | 0.74984E-02 | - | - | 0.45769E-01 | 0.20253E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.10443E+01 | 0.88080E-02 | - | - | 0.46071E-01 | 0.16619E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.10486E+01 | 0.72510E-02 | - | - | 0.45304E-01 | 0.18363E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10582E+01 | 0.74114E-02 | - | - | 0.46595E-01 | 0.17835E-01 |
| 21 | 0.67152E+00 | 0.20010E+00 | 0.10612E+01 | 0.64280E-02 | - | - | 0.40776E-01 | 0.12913E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.10586E+01 | 0.83108E-02 | - | - | 0.22849E-01 | 0.13625E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10505E+01 | 0.68864E-02 | - | - | 0.13150E-01 | 0.17344E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10436E+01 | 0.97109E-02 | - | - | 0.13800E-01 | 0.22007E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10328E+01 | 0.10034E-01 | - | - | 0.45425E-02 | 0.15038E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10304E+01 | 0.72130E-02 | - | - | 0.16942E-01 | 0.17723E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10282E+01 | 0.82365E-02 | - | - | 0.15044E-01 | 0.16813E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10275E+01 | 0.85988E-02 | - | - | 0.14846E-01 | 0.19148E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10246E+01 | 0.77869E-02 | - | - | 0.16647E-01 | 0.16176E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10202E+01 | 0.83592E-02 | - | - | 0.17593E-01 | 0.14399E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10142E+01 | 0.69417E-02 | - | - | 0.14598E-01 | 0.14335E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10089E+01 | 0.88801E-02 | - | - | -0.13209E-01 | 0.13256E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.99568E+00 | 0.32586E-01 | - | - | -0.56941E-01 | 0.48077E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.10096E+01 | 0.90421E-02 | - | - | 0.28201E-01 | 0.16775E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.10121E+01 | 0.76210E-02 | - | - | 0.46645E-01 | 0.14419E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10154E+01 | 0.81624E-02 | - | - | 0.40843E-01 | 0.14360E-01 |
| 37 | 0.11001E+01 | -0.20027E+00 | 0.10181E+01 | 0.82559E-02 | - | - | 0.44797E-01 | 0.15674E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20027E+00 | 0.10151E+01 | 0.11875E-01 | - | - | 0.41665E-01 | 0.12453E-01 |
| 39 | 0.10142E+01 | -0.20027E+00 | 0.10198E+01 | 0.10179E-01 | - | - | 0.45039E-01 | 0.14532E-01 |
| 40 | 0.92832E+00 | -0.20027E+00 | 0.10239E+01 | 0.68661E-02 | - | - | 0.66148E-01 | 0.38366E-01 |
| 41 | 0.84256E+00 | -0.20027E+00 | 0.10372E+01 | 0.80015E-02 | - | - | 0.52238E-01 | 0.44764E-01 |
| 42 | 0.75704E+00 | -0.20027E+00 | 0.10375E+01 | 0.90361E-02 | - | - | 0.35552E-01 | 0.50221E-01 |
| 43 | 0.67116E+00 | -0.20027E+00 | 0.10288E+01 | 0.10278E-01 | - | - | 0.47701E-01 | 0.47718E-01 |
| 44 | 0.58564E+00 | -0.20027E+00 | 0.10217E+01 | 0.10183E-01 | - | - | 0.41797E-01 | 0.48364E-01 |
| 45 | 0.49988E+00 | -0.20027E+00 | 0.10208E+01 | 0.88710E-02 | - | - | 0.35859E-01 | 0.49629E-01 |
| 46 | 0.41388E+00 | -0.20027E+00 | 0.10195E+01 | 0.69496E-02 | - | - | 0.26536E-01 | 0.46586E-01 |
| 47 | 0.32836E+00 | -0.20027E+00 | 0.10166E+01 | 0.71343E-02 | - | - | 0.24301E-01 | 0.44726E-01 |
| 48 | 0.24260E+00 | -0.20027E+00 | 0.10163E+01 | 0.84163E-02 | - | - | 0.31103E-01 | 0.41058E-01 |
| 49 | 0.15696E+00 | -0.20027E+00 | 0.10197E+01 | 0.86736E-02 | - | - | 0.27046E-01 | 0.25054E-01 |
| 50 | 0.71326E-01 | -0.20027E+00 | 0.10148E+01 | 0.66279E-02 | - | - | 0.31507E-01 | 0.46151E-01 |
| 51 | -0.14677E-01 | -0.20027E+00 | 0.10188E+01 | 0.10459E-01 | - | - | 0.21310E-01 | 0.16054E-01 |
| 52 | -0.10032E+00 | -0.20027E+00 | 0.10177E+01 | 0.82545E-02 | - | - | 0.21488E-01 | 0.17548E-01 |

I1 = 0.0189 I2 = 2.4992 I3 = -0.0121 I4 = -2.4541

Lift = 0.0518

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 11 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.10156E+01 | 0.72077E-02 | - | - | 0.22911E-01 | 0.13098E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.10166E+01 | 0.61632E-02 | - | - | 0.28847E-01 | 0.14391E-01 |
| 3 | -0.10019E+00 | -0.66410E-01 | 0.10182E+01 | 0.76481E-02 | - | - | 0.34483E-01 | 0.11710E-01 |
| 4 | -0.10019E+00 | 0.27892E-03 | 0.10181E+01 | 0.15263E-01 | - | - | 0.30557E-01 | 0.12871E-01 |
| 5 | -0.10019E+00 | 0.66968E-01 | 0.10200E+01 | 0.68420E-02 | - | - | 0.31881E-01 | 0.12162E-01 |
| 6 | -0.10019E+00 | 0.13353E+00 | 0.10213E+01 | 0.72959E-02 | - | - | 0.27073E-01 | 0.11545E-01 |
| 7 | -0.10019E+00 | 0.20022E+00 | 0.10201E+01 | 0.77075E-02 | - | - | 0.31427E-01 | 0.16473E-01 |
| 8 | -0.99708E-01 | 0.20022E+00 | 0.10246E+01 | 0.53544E-02 | - | - | 0.28277E-01 | 0.14262E-01 |
| 9 | -0.14070E-01 | 0.20022E+00 | 0.10254E+01 | 0.85541E-02 | - | - | 0.30279E-01 | 0.15091E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.10254E+01 | 0.80377E-02 | - | - | 0.42107E-01 | 0.14743E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.10334E+01 | 0.93844E-02 | - | - | 0.38799E-01 | 0.13618E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.10336E+01 | 0.80832E-02 | - | - | 0.40682E-01 | 0.15785E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.10397E+01 | 0.70006E-02 | - | - | 0.52019E-01 | 0.15145E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.10450E+01 | 0.75269E-02 | - | - | 0.49085E-01 | 0.15987E-01 |
| 15 | 0.50037E+00 | 0.20022E+00 | 0.10518E+01 | 0.76771E-02 | - | - | 0.46195E-01 | 0.11707E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.10643E+01 | 0.92013E-02 | - | - | 0.43029E-01 | 0.11724E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.10634E+01 | 0.82349E-02 | - | - | 0.32600E-01 | 0.11844E-01 |
| 18 | 0.75740E+00 | 0.20022E+00 | 0.10628E+01 | 0.82006E-02 | - | - | 0.19716E-01 | 0.14658E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10515E+01 | 0.61620E-02 | - | - | 0.29928E-02 | 0.10985E-01 |
| 20 | 0.92880E+00 | 0.20022E+00 | 0.10424E+01 | 0.71415E-02 | - | - | 0.37086E-02 | 0.15364E-01 |
| 21 | 0.10144E+01 | 0.20022E+00 | 0.10327E+01 | 0.66591E-02 | - | - | 0.48064E-02 | 0.13522E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10262E+01 | 0.68347E-02 | - | - | 0.60964E-02 | 0.13030E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10270E+01 | 0.70316E-02 | - | - | 0.64010E-02 | 0.10049E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10227E+01 | 0.74186E-02 | - | - | 0.61521E-02 | 0.99669E-02 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10130E+01 | 0.68630E-02 | - | - | -0.21314E-04 | 0.11347E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.10032E+01 | 0.85905E-02 | - | - | -0.14313E-01 | 0.98090E-02 |
| 27 | 0.11002E+01 | -0.66896E-01 | 0.10015E+01 | 0.80610E-02 | - | - | 0.68225E-02 | 0.10742E-01 |
| 28 | 0.11002E+01 | -0.13358E+00 | 0.10088E+01 | 0.71000E-02 | - | - | 0.29122E-01 | 0.81401E-02 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.10136E+01 | 0.78038E-02 | - | - | 0.31257E-01 | 0.97532E-02 |
| 30 | 0.10997E+01 | -0.20027E+00 | 0.10130E+01 | 0.69959E-02 | - | - | 0.33623E-01 | 0.10900E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.10137E+01 | 0.82645E-02 | - | - | 0.41907E-01 | 0.10229E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.10246E+01 | 0.63290E-02 | - | - | 0.25508E-01 | 0.65965E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.10320E+01 | 0.72644E-02 | - | - | 0.62945E-02 | 0.42257E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10329E+01 | 0.10529E-01 | - | - | -0.19531E-01 | 0.43357E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10303E+01 | 0.98697E-02 | - | - | -0.33611E-01 | 0.43995E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10214E+01 | 0.75710E-02 | - | - | -0.48873E-01 | 0.47510E-01 |
| 37 | 0.49988E+00 | -0.20027E+00 | 0.10173E+01 | 0.68641E-02 | - | - | -0.62230E-01 | 0.44027E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20027E+00 | 0.10151E+01 | 0.70073E-02 | - | - | -0.85014E-01 | 0.46881E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10160E+01 | 0.67369E-02 | - | - | -0.10941E+00 | 0.45089E-01 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.10163E+01 | 0.70842E-02 | - | - | -0.96301E-01 | 0.57816E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.10147E+01 | 0.71478E-02 | - | - | -0.65948E-02 | 0.47665E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.10137E+01 | 0.65814E-02 | - | - | -0.86009E-02 | 0.44446E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.10146E+01 | 0.77768E-02 | - | - | 0.24826E-01 | 0.14115E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.10160E+01 | 0.64370E-02 | - | - | 0.27288E-01 | 0.19115E-01 |

I1 = 0.0237 I2 = 2.5022 I3 = -0.0060 I4 = -2.4475

Lift = 0.0724

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 9 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99708E-01 | -0.20003E+00 | 0.99984E+00 | 0.11998E-01 | - | - | 0.19501E-01 | 0.15612E-01 |
| 2 | -0.99708E-01 | -0.13322E+00 | 0.99782E+00 | 0.97734E-02 | - | - | 0.29588E-01 | 0.15891E-01 |
| 3 | -0.99708E-01 | -0.66610E-01 | 0.99733E+00 | 0.96929E-02 | - | - | 0.32464E-01 | 0.14046E-01 |
| 4 | -0.99708E-01 | 0.27892E-03 | 0.10006E+01 | 0.10893E-01 | - | - | 0.40258E-01 | 0.12740E-01 |
| 5 | -0.99708E-01 | 0.66968E-01 | 0.10069E+01 | 0.92132E-02 | - | - | 0.40633E-01 | 0.15233E-01 |
| 6 | -0.99708E-01 | 0.13353E+00 | 0.10148E+01 | 0.97487E-02 | - | - | 0.46953E-01 | 0.15751E-01 |
| 7 | -0.99708E-01 | 0.20022E+00 | 0.10198E+01 | 0.94334E-02 | - | - | 0.52109E-01 | 0.14896E-01 |
| 8 | -0.10019E+00 | 0.20022E+00 | 0.10210E+01 | 0.10420E-01 | - | - | 0.51194E-01 | 0.14893E-01 |
| 9 | -0.14070E-01 | 0.20022E+00 | 0.10224E+01 | 0.11430E-01 | - | - | 0.56878E-01 | 0.19038E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.10305E+01 | 0.10066E-01 | - | - | 0.61680E-01 | 0.14503E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.10496E+01 | 0.99601E-02 | - | - | 0.75111E-01 | 0.13965E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.10712E+01 | 0.12572E-01 | - | - | 0.79675E-01 | 0.17859E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.10891E+01 | 0.11181E-01 | - | - | 0.63641E-01 | 0.12824E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11002E+01 | 0.11784E-01 | - | - | 0.37370E-01 | 0.16591E-01 |
| 15 | 0.50037E+00 | 0.20022E+00 | 0.11049E+01 | 0.11431E-01 | - | - | 0.16731E-01 | 0.14664E-01 |
| 16 | 0.58601E+00 | 0.20022E+00 | 0.10947E+01 | 0.10110E-01 | - | - | -0.10006E-01 | 0.13532E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.10865E+01 | 0.10855E-01 | - | - | -0.26623E-01 | 0.13999E-01 |
| 18 | 0.75740E+00 | 0.20022E+00 | 0.10691E+01 | 0.11578E-01 | - | - | -0.36196E-01 | 0.13102E-01 |
| 19 | 0.84304E+00 | 0.20022E+00 | 0.10563E+01 | 0.11234E-01 | - | - | -0.40400E-01 | 0.12312E-01 |
| 20 | 0.92880E+00 | 0.20022E+00 | 0.10391E+01 | 0.11455E-01 | - | - | -0.45122E-01 | 0.15070E-01 |
| 21 | 0.10144E+01 | 0.20022E+00 | 0.10291E+01 | 0.10114E-01 | - | - | -0.41394E-01 | 0.12919E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10218E+01 | 0.10609E-01 | - | - | -0.30505E-01 | 0.11634E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10204E+01 | 0.12911E-01 | - | - | -0.24716E-01 | 0.12425E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10164E+01 | 0.11327E-01 | - | - | -0.34725E-01 | 0.11223E-01 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10026E+01 | 0.10676E-01 | - | - | -0.38475E-01 | 0.12898E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.99081E+00 | 0.10663E-01 | - | - | -0.39148E-01 | 0.12475E-01 |
| 27 | 0.11002E+01 | -0.66896E-01 | 0.98494E+00 | 0.14503E-01 | - | - | -0.87379E-02 | 0.12574E-01 |
| 28 | 0.11002E+01 | -0.13358E+00 | 0.99353E+00 | 0.88671E-02 | - | - | 0.33083E-02 | 0.83729E-02 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.10004E+01 | 0.10214E-01 | - | - | 0.33066E-02 | 0.11566E-01 |
| 30 | 0.10997E+01 | -0.20027E+00 | 0.99911E+00 | 0.11465E-01 | - | - | 0.54033E-02 | 0.11424E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.10006E+01 | 0.11206E-01 | - | - | 0.16084E-01 | 0.96800E-02 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.10065E+01 | 0.11297E-01 | - | - | 0.10277E-01 | 0.40248E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.10142E+01 | 0.10136E-01 | - | - | -0.47616E-01 | 0.52067E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10280E+01 | 0.11408E-01 | - | - | -0.85386E-01 | 0.47951E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10362E+01 | 0.92151E-02 | - | - | -0.12052E+00 | 0.50858E-01 |
| 36 | 0.58540E+00 | -0.20027E+00 | 0.10427E+01 | 0.13142E-01 | - | - | -0.16003E+00 | 0.49753E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10385E+01 | 0.14034E-01 | - | - | -0.18492E+00 | 0.47881E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10287E+01 | 0.13483E-01 | - | - | -0.96821E-01 | 0.75714E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.10160E+01 | 0.11793E-01 | - | - | -0.10975E+00 | 0.48914E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.10004E+01 | 0.11947E-01 | - | - | -0.13221E+00 | 0.53513E-01 |
| 41 | 0.15684E+00 | -0.20027E+00 | 0.99870E+00 | 0.11273E-01 | - | - | -0.67049E-01 | 0.62099E-01 |
| 42 | 0.71204E-01 | -0.20027E+00 | 0.99261E+00 | 0.97777E-02 | - | - | 0.60900E-02 | 0.33304E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.99664E+00 | 0.10113E-01 | - | - | 0.18054E-01 | 0.14427E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.99803E+00 | 0.11142E-01 | - | - | 0.13044E-01 | 0.20228E-01 |

I1 = 0.0304 I2 = 2.5488 I3 = 0.0177 I4 = -2.4342

Lift = 0.1627

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 10 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20015E+00 | 0.10005E+01 | 0.73360E-02 | - | - | 0.21626E-01 | 0.15984E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.99880E+00 | 0.58834E-02 | - | - | 0.16220E-01 | 0.14419E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.10004E+01 | 0.69762E-02 | - | - | 0.85520E-02 | 0.16073E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.10040E+01 | 0.70640E-02 | - | - | 0.44727E-01 | 0.18936E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10101E+01 | 0.72887E-02 | - | - | 0.43285E-01 | 0.12621E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10178E+01 | 0.62155E-02 | - | - | 0.61913E-01 | 0.10320E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10253E+01 | 0.61582E-02 | - | - | 0.61376E-01 | 0.12466E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10249E+01 | 0.65612E-02 | - | - | 0.43475E-01 | 0.13082E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10271E+01 | 0.72342E-02 | - | - | 0.46051E-01 | 0.14767E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.10401E+01 | 0.66792E-02 | - | - | 0.55686E-01 | 0.11855E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.10588E+01 | 0.10176E-01 | - | - | 0.50694E-01 | 0.14078E-01 |
| 12 | 0.24321E+00 | 0.20010E+00 | 0.10792E+01 | 0.76435E-02 | - | - | 0.80364E-01 | 0.13668E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.10975E+01 | 0.68517E-02 | - | - | 0.64917E-01 | 0.13609E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11024E+01 | 0.77723E-02 | - | - | 0.26871E-01 | 0.12897E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11042E+01 | 0.65015E-02 | - | - | 0.17416E-02 | 0.11314E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11011E+01 | 0.76188E-02 | - | - | -0.14320E-01 | 0.16077E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10887E+01 | 0.96952E-02 | - | - | -0.33858E-01 | 0.13490E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10742E+01 | 0.68721E-02 | - | - | -0.38539E-01 | 0.10255E-01 |
| 19 | 0.84316E+00 | 0.20010E+00 | 0.10576E+01 | 0.72149E-02 | - | - | -0.43389E-01 | 0.10984E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10422E+01 | 0.74006E-02 | - | - | -0.41465E-01 | 0.15215E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10309E+01 | 0.73075E-02 | - | - | -0.33894E-01 | 0.98852E-02 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10241E+01 | 0.69342E-02 | - | - | -0.32531E-01 | 0.16500E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10260E+01 | 0.62725E-02 | - | - | -0.30933E-01 | 0.14195E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10164E+01 | 0.59431E-02 | - | - | -0.34722E-01 | 0.14391E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10062E+01 | 0.73398E-02 | - | - | -0.37578E-01 | 0.12207E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.99165E+00 | 0.94144E-02 | - | - | -0.34300E-01 | 0.78240E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99138E+00 | 0.12428E-01 | - | - | -0.20803E-01 | 0.14225E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.99517E+00 | 0.65145E-02 | - | - | -0.38388E-02 | 0.11751E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10038E+01 | 0.69247E-02 | - | - | 0.15567E-02 | 0.13307E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.10038E+01 | 0.78308E-02 | - | - | 0.10574E-02 | 0.11711E-01 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.10024E+01 | 0.76615E-02 | - | - | 0.15170E-01 | 0.10098E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.10045E+01 | 0.65715E-02 | - | - | -0.18285E-02 | 0.44597E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.10163E+01 | 0.67715E-02 | - | - | -0.51319E-01 | 0.46398E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10326E+01 | 0.64623E-02 | - | - | -0.88659E-01 | 0.49930E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10359E+01 | 0.81275E-02 | - | - | -0.11347E+00 | 0.42118E-01 |
| 36 | 0.58540E+00 | -0.20015E+00 | 0.10468E+01 | 0.91340E-02 | - | - | -0.13691E+00 | 0.52487E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10392E+01 | 0.69484E-02 | - | - | -0.15967E+00 | 0.44619E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.61412E+00 | -0.20015E+00 | 0.10353E+01 | 0.69940E-01 | - | - | -0.70635E-01 | 0.67727E-01 |
| 39 | 0.32846E+00 | -0.20015E+00 | 0.10161E+01 | 0.79766E-02 | - | - | -0.85944E-01 | 0.45142E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.10059E+01 | 0.11774E-01 | - | - | -0.97234E-01 | 0.49671E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.99809E+00 | 0.10944E-01 | - | - | -0.10948E+00 | 0.50964E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.99680E+00 | 0.62305E-02 | - | - | -0.78361E-01 | 0.63513E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.99983E+00 | 0.94225E-02 | - | - | 0.26540E-02 | 0.24659E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.10024E+01 | 0.64608E-02 | - | - | 0.14521E-02 | 0.12709E-01 |

I1 = 0.0301 I2 = 2.5592 I3 = 0.0194 I4 = -2.4389

Lift = 0.1699

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 8 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20015E+00 | 0.97143E+00 | 0.28652E-01 | - | - | -0.57373E-02 | 0.37627E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.96003E+00 | 0.34784E-01 | - | - | -0.46244E-02 | 0.34892E-01 |
| 3 | -0.10032E+00 | -0.66410E-01 | 0.93421E+00 | 0.36511E-01 | - | - | 0.24419E-01 | 0.26466E-01 |
| 4 | -0.10032E+00 | 0.27892E-03 | 0.93233E+00 | 0.31254E-01 | - | - | 0.83024E-01 | 0.21756E-01 |
| 5 | -0.10032E+00 | 0.66968E-01 | 0.96206E+00 | 0.22467E-01 | - | - | 0.10925E+00 | 0.20478E-01 |
| 6 | -0.10032E+00 | 0.13353E+00 | 0.10025E+01 | 0.18328E-01 | - | - | 0.10168E+00 | 0.18369E-01 |
| 7 | -0.10032E+00 | 0.20022E+00 | 0.10278E+01 | 0.18798E-01 | - | - | 0.94898E-01 | 0.18507E-01 |
| 8 | -0.99708E-01 | 0.20022E+00 | 0.10276E+01 | 0.15942E-01 | - | - | 0.88388E-01 | 0.16800E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.10522E+01 | 0.15323E-01 | - | - | 0.11508E+00 | 0.20125E-01 |
| 10 | 0.71569E-01 | 0.20022E+00 | 0.10946E+01 | 0.14857E-01 | - | - | 0.11197E+00 | 0.18155E-01 |
| 11 | 0.15721E+00 | 0.20022E+00 | 0.11347E+01 | 0.15726E-01 | - | - | 0.85303E-01 | 0.14903E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.11503E+01 | 0.13510E-01 | - | - | 0.47453E-01 | 0.28118E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.11452E+01 | 0.13115E-01 | - | - | 0.13434E-01 | 0.30297E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11331E+01 | 0.11549E-01 | - | - | -0.13224E-01 | 0.34939E-01 |
| 15 | 0.50025E+00 | 0.20022E+00 | 0.11170E+01 | 0.12876E-01 | - | - | -0.42058E-01 | 0.23373E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.10990E+01 | 0.12991E-01 | - | - | -0.56076E-01 | 0.23696E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.10815E+01 | 0.13719E-01 | - | - | -0.65524E-01 | 0.24289E-01 |
| 18 | 0.75740E+00 | 0.20022E+00 | 0.10660E+01 | 0.15685E-01 | - | - | -0.70085E-01 | 0.20854E-01 |
| 19 | 0.84304E+00 | 0.20022E+00 | 0.10511E+01 | 0.18259E-01 | - | - | -0.66794E-01 | 0.32225E-01 |
| 20 | 0.92868E+00 | 0.20022E+00 | 0.10392E+01 | 0.17651E-01 | - | - | -0.62289E-01 | 0.41705E-01 |
| 21 | 0.10146E+01 | 0.20022E+00 | 0.10312E+01 | 0.21919E-01 | - | - | -0.59879E-01 | 0.36662E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10242E+01 | 0.22798E-01 | - | - | -0.39755E-01 | 0.20089E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10240E+01 | 0.21552E-01 | - | - | -0.37893E-01 | 0.14394E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10176E+01 | 0.19582E-01 | - | - | -0.38598E-01 | 0.11107E-01 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10053E+01 | 0.17759E-01 | - | - | -0.36474E-01 | 0.10366E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.99055E+00 | 0.19714E-01 | - | - | -0.30184E-01 | 0.12137E-01 |
| 27 | 0.11002E+01 | -0.66896E-01 | 0.98392E+00 | 0.19721E-01 | - | - | 0.34607E-02 | 0.12979E-01 |
| 28 | 0.11002E+01 | -0.13358E+00 | 0.99271E+00 | 0.19373E-01 | - | - | 0.77816E-02 | 0.81352E-02 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.99714E+00 | 0.17650E-01 | - | - | 0.98558E-02 | 0.94037E-02 |
| 30 | 0.10997E+01 | -0.20027E+00 | 0.99918E+00 | 0.18694E-01 | - | - | 0.10647E-01 | 0.19902E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.99599E+00 | 0.13166E-01 | - | - | 0.20107E-01 | 0.32526E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.99836E+00 | 0.11365E-01 | - | - | -0.26261E-02 | 0.51012E-01 |
| 33 | 0.84244E+00 | -0.20027E+00 | 0.10077E+01 | 0.11241E-01 | - | - | -0.88044E-01 | 0.62844E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10201E+01 | 0.11768E-01 | - | - | -0.12164E+00 | 0.47944E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10316E+01 | 0.11548E-01 | - | - | -0.14948E+00 | 0.51016E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10395E+01 | 0.10687E-01 | - | - | -0.16506E+00 | 0.52143E-01 |
| 37 | 0.49964E+00 | -0.20027E+00 | 0.10459E+01 | 0.11054E-01 | - | - | -0.20615E+00 | 0.45930E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10507E+01 | 0.11058E-01 | - | - | -0.23763E+00 | 0.49981E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.10489E+01 | 0.13203E-01 | - | - | -0.26780E+00 | 0.50547E-01 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.10392E+01 | 0.12948E-01 | - | - | -0.27425E+00 | 0.49668E-01 |
| 41 | 0.15672E+00 | -0.20027E+00 | 0.10236E+01 | 0.14551E-01 | - | - | -0.29201E+00 | 0.43397E-01 |
| 42 | 0.71083E-01 | -0.20027E+00 | 0.99769E+00 | 0.16210E-01 | - | - | -0.29009E+00 | 0.41824E-01 |
| 43 | -0.14677E-01 | -0.20027E+00 | 0.97120E+00 | 0.18666E-01 | - | - | -0.29336E+00 | 0.45268E-01 |
| 44 | -0.10032E+00 | -0.20027E+00 | 0.96391E+00 | 0.15342E-01 | - | - | -0.31955E+00 | 0.44224E-01 |

I1 = 0.0479 I2 = 2.6096 I3 = 0.0150 I4 = -2.4431

Lift = 0.2294

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 7 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20015E+00 | 0.95538E+00 | 0.11843E-01 | - | - | -0.16964E-01 | 0.23083E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.93754E+00 | 0.20648E-01 | - | - | 0.12347E-02 | 0.20784E-01 |
| 3 | -0.10044E+00 | -0.66410E-01 | 0.91572E+00 | 0.18445E-01 | - | - | 0.38628E-01 | 0.23783E-01 |
| 4 | -0.10044E+00 | 0.27892E-03 | 0.93036E+00 | 0.16199E-01 | - | - | 0.87559E-01 | 0.22942E-01 |
| 5 | -0.10044E+00 | 0.66968E-01 | 0.97499E+00 | 0.12895E-01 | - | - | 0.12146E+00 | 0.18917E-01 |
| 6 | -0.10044E+00 | 0.13353E+00 | 0.10199E+01 | 0.11758E-01 | - | - | 0.11886E+00 | 0.26241E-01 |
| 7 | -0.10044E+00 | 0.20022E+00 | 0.10418E+01 | 0.12348E-01 | - | - | 0.10386E+00 | 0.15119E-01 |
| 8 | -0.99830E-01 | 0.20022E+00 | 0.10463E+01 | 0.14190E-01 | - | - | 0.10191E+00 | 0.18494E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.10755E+01 | 0.14777E-01 | - | - | 0.11206E+00 | 0.18633E-01 |
| 10 | 0.71569E-01 | 0.20022E+00 | 0.11316E+01 | 0.11946E-01 | - | - | 0.12348E+00 | 0.18682E-01 |
| 11 | 0.15721E+00 | 0.20022E+00 | 0.11644E+01 | 0.12714E-01 | - | - | 0.84158E-01 | 0.21148E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.11824E+01 | 0.96058E-02 | - | - | 0.45948E-01 | 0.23684E-01 |
| 13 | 0.32885E+00 | 0.20022E+00 | 0.11716E+01 | 0.12590E-01 | - | - | 0.31436E-02 | 0.27906E-01 |
| 14 | 0.41469E+00 | 0.20022E+00 | 0.11536E+01 | 0.94232E-02 | - | - | -0.30861E-01 | 0.23500E-01 |
| 15 | 0.50013E+00 | 0.20022E+00 | 0.11392E+01 | 0.10344E-01 | - | - | -0.57737E-01 | 0.18192E-01 |
| 16 | 0.58601E+00 | 0.20022E+00 | 0.11117E+01 | 0.12843E-01 | - | - | -0.75650E-01 | 0.22383E-01 |
| 17 | 0.67165E+00 | 0.20022E+00 | 0.10824E+01 | 0.94170E-02 | - | - | -0.81243E-01 | 0.20564E-01 |
| 18 | 0.75728E+00 | 0.20022E+00 | 0.10727E+01 | 0.10974E-01 | - | - | -0.80087E-01 | 0.16448E-01 |
| 19 | 0.84304E+00 | 0.20022E+00 | 0.10553E+01 | 0.10197E-01 | - | - | -0.74685E-01 | 0.17934E-01 |
| 20 | 0.92868E+00 | 0.20022E+00 | 0.10458E+01 | 0.14604E-01 | - | - | -0.69160E-01 | 0.21711E-01 |
| 21 | 0.10146E+01 | 0.20022E+00 | 0.10341E+01 | 0.13980E-01 | - | - | -0.61931E-01 | 0.19433E-01 |
| 22 | 0.11001E+01 | 0.20022E+00 | 0.10270E+01 | 0.13774E-01 | - | - | -0.50634E-01 | 0.18911E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10256E+01 | 0.11343E-01 | - | - | -0.51508E-01 | 0.19565E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10155E+01 | 0.13970E-01 | - | - | -0.50306E-01 | 0.18781E-01 |
| 25 | 0.11001E+01 | 0.66482E-01 | 0.10075E+01 | 0.13612E-01 | - | - | -0.49835E-01 | 0.18649E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.99294E+00 | 0.14636E-01 | - | - | -0.31489E-01 | 0.16161E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.98742E+00 | 0.14030E-01 | - | - | 0.16156E-01 | 0.22809E-01 |
| 28 | 0.11001E+01 | -0.13358E+00 | 0.99397E+00 | 0.94074E-02 | - | - | 0.27878E-01 | 0.10859E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.99905E+00 | 0.15167E-01 | - | - | 0.16778E-01 | 0.22044E-01 |
| 30 | 0.10995E+01 | -0.20027E+00 | 0.10016E+01 | 0.11500E-01 | - | - | 0.12601E-01 | 0.18897E-01 |
| 31 | 0.10141E+01 | -0.20027E+00 | 0.99660E+00 | 0.12516E-01 | - | - | 0.20283E-01 | 0.17010E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.99899E+00 | 0.16165E-01 | - | - | 0.27029E-01 | 0.31336E-01 |
| 33 | 0.84256E+00 | -0.20027E+00 | 0.10075E+01 | 0.13545E-01 | - | - | 0.30486E-01 | 0.23974E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10173E+01 | 0.10613E-01 | - | - | 0.29622E-01 | 0.22959E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10293E+01 | 0.10710E-01 | - | - | 0.36019E-01 | 0.28489E-01 |
| 36 | 0.58552E+00 | -0.20027E+00 | 0.10355E+01 | 0.11395E-01 | - | - | 0.34333E-01 | 0.39409E-01 |
| 37 | 0.49988E+00 | -0.20027E+00 | 0.10434E+01 | 0.13054E-01 | - | - | 0.25443E-01 | 0.38682E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20027E+00 | 0.10449E+01 | 0.14990E-01 | - | - | 0.27539E-01 | 0.44170E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.10404E+01 | 0.11501E-01 | - | - | 0.90620E-02 | 0.53000E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.10284E+01 | 0.13426E-01 | - | - | -0.26823E-01 | 0.35403E-01 |
| 41 | 0.15684E+00 | -0.20027E+00 | 0.10071E+01 | 0.14844E-01 | - | - | -0.43514E-01 | 0.27805E-01 |
| 42 | 0.71204E-01 | -0.20027E+00 | 0.97800E+00 | 0.18118E-01 | - | - | -0.49992E-01 | 0.19655E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.95883E+00 | 0.17193E-01 | - | - | -0.36213E-01 | 0.21475E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.95808E+00 | 0.15655E-01 | - | - | -0.10807E-01 | 0.27295E-01 |

I1 = 0.0550 I2 = 2.6514 I3 = 0.0141 I4 = -2.4285

Lift = 0.2920

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 6 at y/c = -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20015E+00 | 0.95267E+00 | 0.12906E-01 | - | - | -0.29212E-02 | 0.39125E-01 |
| 2 | -0.10007E+00 | -0.15970E+00 | 0.94078E+00 | 0.15293E-01 | - | - | 0.19020E-01 | 0.36475E-01 |
| 3 | -0.10007E+00 | -0.11986E+00 | 0.92678E+00 | 0.12260E-01 | - | - | 0.26507E-01 | 0.36440E-01 |
| 4 | -0.10007E+00 | -0.79893E-01 | 0.91134E+00 | 0.13127E-01 | - | - | 0.51715E-01 | 0.39159E-01 |
| 5 | -0.10007E+00 | -0.39807E-01 | 0.91043E+00 | 0.15375E-01 | - | - | 0.82351E-01 | 0.29735E-01 |
| 6 | -0.10007E+00 | 0.15778E-03 | 0.92679E+00 | 0.13283E-01 | - | - | 0.10388E+00 | 0.32994E-01 |
| 7 | -0.10007E+00 | 0.40123E-01 | 0.95842E+00 | 0.11581E-01 | - | - | 0.13519E+00 | 0.39061E-01 |
| 8 | -0.10007E+00 | 0.80208E-01 | 0.99105E+00 | 0.12018E-01 | - | - | 0.14886E+00 | 0.41193E-01 |
| 9 | -0.10007E+00 | 0.12029E+00 | 0.10148E+01 | 0.97370E-02 | - | - | 0.14135E+00 | 0.36732E-01 |
| 10 | -0.10007E+00 | 0.16026E+00 | 0.10318E+01 | 0.10943E-01 | - | - | 0.12307E+00 | 0.35004E-01 |
| 11 | -0.10007E+00 | 0.20022E+00 | 0.10465E+01 | 0.99543E-02 | - | - | 0.12356E+00 | 0.36070E-01 |
| 12 | -0.99708E-01 | 0.20022E+00 | 0.10402E+01 | 0.98497E-02 | - | - | 0.11505E+00 | 0.44850E-01 |
| 13 | -0.14191E-01 | 0.20022E+00 | 0.10778E+01 | 0.92004E-02 | - | - | 0.12623E+00 | 0.34464E-01 |
| 14 | 0.71569E-01 | 0.20022E+00 | 0.11223E+01 | 0.95465E-02 | - | - | 0.12533E+00 | 0.43462E-01 |
| 15 | 0.15721E+00 | 0.20022E+00 | 0.11711E+01 | 0.98193E-02 | - | - | 0.12097E+00 | 0.52168E-01 |
| 16 | 0.24297E+00 | 0.20022E+00 | 0.11806E+01 | 0.10802E-01 | - | - | 0.86860E-01 | 0.61334E-01 |
| 17 | 0.32873E+00 | 0.20022E+00 | 0.11702E+01 | 0.10573E-01 | - | - | 0.55139E-01 | 0.63431E-01 |
| 18 | 0.41449E+00 | 0.20022E+00 | 0.11532E+01 | 0.10485E-01 | - | - | 0.86313E-02 | 0.59302E-01 |
| 19 | 0.50013E+00 | 0.20022E+00 | 0.11327E+01 | 0.77586E-02 | - | - | -0.10646E-01 | 0.60896E-01 |
| 20 | 0.58588E+00 | 0.20022E+00 | 0.11138E+01 | 0.89257E-02 | - | - | -0.31985E-01 | 0.52876E-01 |
| 21 | 0.67165E+00 | 0.20022E+00 | 0.10886E+01 | 0.11320E-01 | - | - | -0.62708E-01 | 0.39501E-01 |
| 22 | 0.75728E+00 | 0.20022E+00 | 0.10682E+01 | 0.85357E-02 | - | - | -0.80314E-01 | 0.29107E-01 |
| 23 | 0.84292E+00 | 0.20022E+00 | 0.10551E+01 | 0.10169E-01 | - | - | -0.66808E-01 | 0.41265E-01 |
| 24 | 0.92880E+00 | 0.20022E+00 | 0.10417E+01 | 0.83448E-02 | - | - | -0.62733E-01 | 0.49060E-01 |
| 25 | 0.10144E+01 | 0.20022E+00 | 0.10322E+01 | 0.11690E-01 | - | - | -0.56463E-01 | 0.37525E-01 |
| 26 | 0.11001E+01 | 0.20022E+00 | 0.10246E+01 | 0.74952E-02 | - | - | -0.50230E-01 | 0.38665E-01 |
| 27 | 0.11001E+01 | 0.19986E+00 | 0.10252E+01 | 0.89650E-02 | - | - | -0.47978E-01 | 0.33615E-01 |
| 28 | 0.11001E+01 | 0.15977E+00 | 0.10203E+01 | 0.98464E-02 | - | - | -0.49350E-01 | 0.33358E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10170E+01 | 0.11089E-01 | - | - | -0.50717E-01 | 0.28047E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10108E+01 | 0.10597E-01 | - | - | -0.46305E-01 | 0.32956E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10021E+01 | 0.93645E-02 | - | - | -0.41172E-01 | 0.28731E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.99387E+00 | 0.98100E-02 | - | - | -0.34214E-01 | 0.22122E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.81858E+00 | 0.66514E-01 | - | - | 0.87148E-02 | 0.49027E-01 |
| 34 | 0.11001E+01 | -0.80258E-01 | 0.97075E+00 | 0.30518E-01 | - | - | 0.78989E-01 | 0.34940E-01 |
| 35 | 0.11001E+01 | -0.12022E+00 | 0.98885E+00 | 0.10254E-01 | - | - | 0.61131E-01 | 0.26543E-01 |
| 36 | 0.11001E+01 | -0.16019E+00 | 0.99560E+00 | 0.10575E-01 | - | - | 0.29578E-01 | 0.29802E-01 |
| 37 | 0.11001E+01 | -0.20027E+00 | 0.99793E+00 | 0.86804E-02 | - | - | 0.18286E-01 | 0.28810E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10997E+01 | -0.20027E+00 | 0.99712E+00 | 0.69998E-02 | - | - | 0.18500E-01 | 0.30672E-01 |
| 39 | 0.10142E+01 | -0.20027E+00 | 0.99494E+00 | 0.11433E-01 | - | - | 0.16255E-01 | 0.30707E-01 |
| 40 | 0.92832E+00 | -0.20027E+00 | 0.99591E+00 | 0.89133E-02 | - | - | 0.25795E-01 | 0.47332E-01 |
| 41 | 0.84268E+00 | -0.20027E+00 | 0.10067E+01 | 0.89355E-02 | - | - | 0.33351E-01 | 0.34300E-01 |
| 42 | 0.75692E+00 | -0.20027E+00 | 0.10139E+01 | 0.10431E-01 | - | - | 0.46332E-01 | 0.39522E-01 |
| 43 | 0.67116E+00 | -0.20027E+00 | 0.10268E+01 | 0.64340E-02 | - | - | 0.55738E-01 | 0.48627E-01 |
| 44 | 0.58564E+00 | -0.20027E+00 | 0.10369E+01 | 0.70237E-02 | - | - | 0.55864E-01 | 0.51724E-01 |
| 45 | 0.49964E+00 | -0.20027E+00 | 0.10351E+01 | 0.70189E-02 | - | - | 0.55099E-01 | 0.52398E-01 |
| 46 | 0.41400E+00 | -0.20027E+00 | 0.10406E+01 | 0.76817E-02 | - | - | 0.56806E-01 | 0.49600E-01 |
| 47 | 0.32848E+00 | -0.20027E+00 | 0.10363E+01 | 0.85886E-02 | - | - | 0.44563E-01 | 0.58834E-01 |
| 48 | 0.24272E+00 | -0.20027E+00 | 0.10211E+01 | 0.11532E-01 | - | - | 0.37143E-01 | 0.56911E-01 |
| 49 | 0.15696E+00 | -0.20027E+00 | 0.10088E+01 | 0.12542E-01 | - | - | -0.10636E-02 | 0.61175E-01 |
| 50 | 0.71326E-01 | -0.20027E+00 | 0.97241E+00 | 0.16423E-01 | - | - | -0.45024E-02 | 0.53164E-01 |
| 51 | -0.14677E-01 | -0.20027E+00 | 0.95641E+00 | 0.13019E-01 | - | - | -0.19979E-02 | 0.49674E-01 |
| 52 | -0.10007E+00 | -0.20027E+00 | 0.95305E+00 | 0.13016E-01 | - | - | 0.50445E-02 | 0.44430E-01 |

I1 = 0.0714 I2 = 2.6477 I3 = 0.0042 I4 = -2.4213

Lift = 0.3020

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 5 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10007E+00 | -0.20015E+00 | 0.95064E+00 | 0.11045E-01 | - | - | 0.51418E-03 | 0.34756E-01 |
| 2 | -0.10007E+00 | -0.15970E+00 | 0.93902E+00 | 0.11116E-01 | - | - | 0.86233E-02 | 0.36665E-01 |
| 3 | -0.10007E+00 | -0.11986E+00 | 0.92261E+00 | 0.12515E-01 | - | - | 0.30700E-01 | 0.37628E-01 |
| 4 | -0.10007E+00 | -0.79893E-01 | 0.91410E+00 | 0.12377E-01 | - | - | 0.43270E-01 | 0.34579E-01 |
| 5 | -0.10007E+00 | -0.39807E-01 | 0.91228E+00 | 0.14177E-01 | - | - | 0.77036E-01 | 0.29823E-01 |
| 6 | -0.10007E+00 | 0.27892E-03 | 0.92828E+00 | 0.11219E-01 | - | - | 0.10704E+00 | 0.29386E-01 |
| 7 | -0.10007E+00 | 0.40244E-01 | 0.95913E+00 | 0.93688E-02 | - | - | 0.13268E+00 | 0.32670E-01 |
| 8 | -0.10007E+00 | 0.80208E-01 | 0.99256E+00 | 0.10597E-01 | - | - | 0.14712E+00 | 0.33459E-01 |
| 9 | -0.10007E+00 | 0.12029E+00 | 0.10165E+01 | 0.10020E-01 | - | - | 0.14087E+00 | 0.37066E-01 |
| 10 | -0.10007E+00 | 0.16026E+00 | 0.10368E+01 | 0.11327E-01 | - | - | 0.12618E+00 | 0.32449E-01 |
| 11 | -0.10007E+00 | 0.20022E+00 | 0.10453E+01 | 0.10263E-01 | - | - | 0.11615E+00 | 0.34633E-01 |
| 12 | -0.99587E-01 | 0.20022E+00 | 0.10516E+01 | 0.85532E-02 | - | - | 0.11824E+00 | 0.30308E-01 |
| 13 | -0.14191E-01 | 0.20022E+00 | 0.10837E+01 | 0.80307E-02 | - | - | 0.12496E+00 | 0.42414E-01 |
| 14 | 0.71690E-01 | 0.20022E+00 | 0.11317E+01 | 0.13045E-01 | - | - | 0.12458E+00 | 0.34588E-01 |
| 15 | 0.15745E+00 | 0.20022E+00 | 0.11735E+01 | 0.11350E-01 | - | - | 0.10344E+00 | 0.48462E-01 |
| 16 | 0.24309E+00 | 0.20022E+00 | 0.11810E+01 | 0.86854E-02 | - | - | 0.62531E-01 | 0.46620E-01 |
| 17 | 0.32873E+00 | 0.20022E+00 | 0.11756E+01 | 0.10538E-01 | - | - | 0.22481E-01 | 0.58506E-01 |
| 18 | 0.41437E+00 | 0.20022E+00 | 0.11562E+01 | 0.89171E-02 | - | - | -0.12249E-01 | 0.51721E-01 |
| 19 | 0.50037E+00 | 0.20022E+00 | 0.11304E+01 | 0.88339E-02 | - | - | -0.27379E-01 | 0.53162E-01 |
| 20 | 0.58601E+00 | 0.20022E+00 | 0.11102E+01 | 0.74312E-02 | - | - | -0.66452E-01 | 0.38478E-01 |
| 21 | 0.67152E+00 | 0.20022E+00 | 0.10884E+01 | 0.70159E-02 | - | - | -0.80712E-01 | 0.34722E-01 |
| 22 | 0.75740E+00 | 0.20022E+00 | 0.10728E+01 | 0.77085E-02 | - | - | -0.81633E-01 | 0.22522E-01 |
| 23 | 0.84304E+00 | 0.20022E+00 | 0.10547E+01 | 0.78274E-02 | - | - | -0.77014E-01 | 0.38050E-01 |
| 24 | 0.92868E+00 | 0.20022E+00 | 0.10436E+01 | 0.12994E-01 | - | - | -0.64725E-01 | 0.39430E-01 |
| 25 | 0.10144E+01 | 0.20022E+00 | 0.10340E+01 | 0.90723E-02 | - | - | -0.59760E-01 | 0.32772E-01 |
| 26 | 0.11001E+01 | 0.20022E+00 | 0.10244E+01 | 0.67214E-02 | - | - | -0.53372E-01 | 0.31291E-01 |
| 27 | 0.11001E+01 | 0.19986E+00 | 0.10260E+01 | 0.87416E-02 | - | - | -0.52574E-01 | 0.35223E-01 |
| 28 | 0.11001E+01 | 0.15977E+00 | 0.10218E+01 | 0.70741E-02 | - | - | -0.59911E-01 | 0.30613E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10188E+01 | 0.10299E-01 | - | - | -0.58207E-01 | 0.27354E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10120E+01 | 0.80149E-02 | - | - | -0.58659E-01 | 0.27960E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10063E+01 | 0.99226E-02 | - | - | -0.60152E-01 | 0.37483E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10007E+01 | 0.15726E-01 | - | - | -0.72548E-01 | 0.32198E-01 |
| 33 | 0.11001E+01 | -0.40293E-01 | 0.81911E+00 | 0.65149E-01 | - | - | -0.28071E-01 | 0.53407E-01 |
| 34 | 0.11001E+01 | -0.80258E-01 | 0.78281E+00 | 0.46801E-01 | - | - | 0.12964E-01 | 0.51099E-01 |
| 35 | 0.11001E+01 | -0.12022E+00 | 0.91821E+00 | 0.59534E-01 | - | - | 0.16115E-01 | 0.36092E-01 |
| 36 | 0.11001E+01 | -0.16019E+00 | 0.99545E+00 | 0.10293E-01 | - | - | 0.50199E-02 | 0.28507E-01 |
| 37 | 0.11001E+01 | -0.20027E+00 | 0.99879E+00 | 0.90188E-02 | - | - | 0.44899E-02 | 0.28196E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20027E+00 | 0.99881E+00 | 0.86257E-02 | - | - | 0.11184E-02 | 0.29395E-01 |
| 39 | 0.10140E+01 | -0.20027E+00 | 0.99594E+00 | 0.12101E-01 | - | - | 0.36702E-02 | 0.29245E-01 |
| 40 | 0.92844E+00 | -0.20027E+00 | 0.99357E+00 | 0.91715E-02 | - | - | 0.13161E-01 | 0.49316E-01 |
| 41 | 0.84268E+00 | -0.20027E+00 | 0.10034E+01 | 0.10477E-01 | - | - | 0.29405E-01 | 0.37295E-01 |
| 42 | 0.75692E+00 | -0.20027E+00 | 0.10144E+01 | 0.87848E-02 | - | - | 0.34939E-01 | 0.43699E-01 |
| 43 | 0.67128E+00 | -0.20027E+00 | 0.10288E+01 | 0.92390E-02 | - | - | 0.31650E-01 | 0.46050E-01 |
| 44 | 0.58564E+00 | -0.20027E+00 | 0.10355E+01 | 0.79503E-02 | - | - | 0.40003E-01 | 0.47726E-01 |
| 45 | 0.49976E+00 | -0.20027E+00 | 0.10379E+01 | 0.95690E-02 | - | - | 0.34475E-01 | 0.53136E-01 |
| 46 | 0.41400E+00 | -0.20027E+00 | 0.10427E+01 | 0.11036E-01 | - | - | 0.22884E-01 | 0.51452E-01 |
| 47 | 0.32848E+00 | -0.20027E+00 | 0.10311E+01 | 0.92395E-02 | - | - | 0.48692E-03 | 0.59132E-01 |
| 48 | 0.24272E+00 | -0.20027E+00 | 0.10194E+01 | 0.13327E-01 | - | - | -0.40644E-02 | 0.56103E-01 |
| 49 | 0.15696E+00 | -0.20027E+00 | 0.10006E+01 | 0.10657E-01 | - | - | -0.37453E-01 | 0.44143E-01 |
| 50 | 0.71326E-01 | -0.20027E+00 | 0.96622E+00 | 0.13233E-01 | - | - | -0.39443E-01 | 0.41912E-01 |
| 51 | -0.14434E-01 | -0.20027E+00 | 0.94959E+00 | 0.14893E-01 | - | - | -0.30862E-01 | 0.41795E-01 |
| 52 | -0.10007E+00 | -0.20027E+00 | 0.95086E+00 | 0.10312E-01 | - | - | -0.11209E-01 | 0.36008E-01 |

I1 = 0.0696 I2 = 2.6531 I3 = 0.0267 I4 = -2.4161

Lift = 0.3333

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 4 at y/c = 0.054

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.94996E+00 | 0.12266E-01 | - | - | 0.47521E-02 | 0.31488E-01 |
| 2 | -0.10019E+00 | -0.15970E+00 | 0.93522E+00 | 0.14683E-01 | - | - | 0.16006E-01 | 0.23569E-01 |
| 3 | -0.10019E+00 | -0.11974E+00 | 0.92532E+00 | 0.14542E-01 | - | - | 0.23731E-01 | 0.27607E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.91297E+00 | 0.12358E-01 | - | - | 0.41108E-01 | 0.24796E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.91079E+00 | 0.13890E-01 | - | - | 0.78856E-01 | 0.23407E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.92969E+00 | 0.13183E-01 | - | - | 0.12333E+00 | 0.33554E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.96274E+00 | 0.11530E-01 | - | - | 0.13616E+00 | 0.29579E-01 |
| 8 | -0.10019E+00 | 0.80208E-01 | 0.99186E+00 | 0.11194E-01 | - | - | 0.13556E+00 | 0.27500E-01 |
| 9 | -0.10019E+00 | 0.12029E+00 | 0.10195E+01 | 0.10230E-01 | - | - | 0.12768E+00 | 0.28190E-01 |
| 10 | -0.10019E+00 | 0.16026E+00 | 0.10377E+01 | 0.10143E-01 | - | - | 0.11698E+00 | 0.27758E-01 |
| 11 | -0.10019E+00 | 0.20022E+00 | 0.10490E+01 | 0.11250E-01 | - | - | 0.10849E+00 | 0.29680E-01 |
| 12 | -0.99465E-01 | 0.20022E+00 | 0.10518E+01 | 0.89006E-02 | - | - | 0.11787E+00 | 0.24986E-01 |
| 13 | -0.14191E-01 | 0.20022E+00 | 0.10875E+01 | 0.76811E-02 | - | - | 0.11599E+00 | 0.35297E-01 |
| 14 | 0.71569E-01 | 0.20022E+00 | 0.11370E+01 | 0.11921E-01 | - | - | 0.11381E+00 | 0.25531E-01 |
| 15 | 0.15721E+00 | 0.20022E+00 | 0.11702E+01 | 0.11290E-01 | - | - | 0.90072E-01 | 0.44825E-01 |
| 16 | 0.24297E+00 | 0.20022E+00 | 0.11906E+01 | 0.79927E-02 | - | - | 0.45324E-01 | 0.45802E-01 |
| 17 | 0.32885E+00 | 0.20022E+00 | 0.11733E+01 | 0.79487E-02 | - | - | 0.14523E-01 | 0.58562E-01 |
| 18 | 0.41449E+00 | 0.20022E+00 | 0.11594E+01 | 0.97087E-02 | - | - | -0.31024E-01 | 0.43467E-01 |
| 19 | 0.50013E+00 | 0.20022E+00 | 0.11334E+01 | 0.10473E-01 | - | - | -0.51373E-01 | 0.39008E-01 |
| 20 | 0.58588E+00 | 0.20022E+00 | 0.11081E+01 | 0.74565E-02 | - | - | -0.62146E-01 | 0.47893E-01 |
| 21 | 0.67165E+00 | 0.20022E+00 | 0.10930E+01 | 0.87110E-02 | - | - | -0.81301E-01 | 0.28359E-01 |
| 22 | 0.75728E+00 | 0.20022E+00 | 0.10757E+01 | 0.96725E-02 | - | - | -0.87860E-01 | 0.22158E-01 |
| 23 | 0.84292E+00 | 0.20022E+00 | 0.10595E+01 | 0.10645E-01 | - | - | -0.80992E-01 | 0.29387E-01 |
| 24 | 0.92868E+00 | 0.20022E+00 | 0.10426E+01 | 0.10483E-01 | - | - | -0.79191E-01 | 0.32810E-01 |
| 25 | 0.10144E+01 | 0.20022E+00 | 0.10319E+01 | 0.10000E-01 | - | - | -0.73821E-01 | 0.26799E-01 |
| 26 | 0.11001E+01 | 0.20022E+00 | 0.10245E+01 | 0.91929E-02 | - | - | -0.66594E-01 | 0.30967E-01 |
| 27 | 0.11001E+01 | 0.19986E+00 | 0.10262E+01 | 0.10977E-01 | - | - | -0.63417E-01 | 0.28865E-01 |
| 28 | 0.11001E+01 | 0.15977E+00 | 0.10222E+01 | 0.90886E-02 | - | - | -0.60085E-01 | 0.30078E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10183E+01 | 0.97942E-02 | - | - | -0.68959E-01 | 0.31585E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10126E+01 | 0.12881E-01 | - | - | -0.67861E-01 | 0.29210E-01 |
| 31 | 0.11001E+01 | 0.39758E-01 | 0.10035E+01 | 0.20946E-01 | - | - | -0.63105E-01 | 0.38602E-01 |
| 32 | 0.11001E+01 | -0.20709E-03 | 0.89616E+00 | 0.59960E-01 | - | - | -0.28390E-01 | 0.62543E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.86455E+00 | 0.66694E-01 | - | - | 0.37974E-01 | 0.52022E-01 |
| 34 | 0.11001E+01 | -0.80258E-01 | 0.80745E+00 | 0.54802E-01 | - | - | -0.38680E-01 | 0.64160E-01 |
| 35 | 0.11001E+01 | -0.12022E+00 | 0.85991E+00 | 0.51609E-01 | - | - | -0.35130E-01 | 0.46606E-01 |
| 36 | 0.11001E+01 | -0.16019E+00 | 0.98673E+00 | 0.19832E-01 | - | - | -0.28435E-01 | 0.27816E-01 |
| 37 | 0.11001E+01 | -0.20027E+00 | 0.99757E+00 | 0.95656E-02 | - | - | -0.21299E-01 | 0.30127E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20027E+00 | 0.99595E+00 | 0.74984E-02 | - | - | -0.21302E-01 | 0.24569E-01 |
| 39 | 0.10142E+01 | -0.20027E+00 | 0.98954E+00 | 0.90335E-02 | - | - | -0.18067E-01 | 0.30013E-01 |
| 40 | 0.92844E+00 | -0.20027E+00 | 0.98933E+00 | 0.79028E-02 | - | - | -0.81847E-04 | 0.38974E-01 |
| 41 | 0.84256E+00 | -0.20027E+00 | 0.10021E+01 | 0.82305E-02 | - | - | 0.10526E-01 | 0.37208E-01 |
| 42 | 0.75704E+00 | -0.20027E+00 | 0.10146E+01 | 0.97711E-02 | - | - | 0.26378E-01 | 0.36651E-01 |
| 43 | 0.67128E+00 | -0.20027E+00 | 0.10260E+01 | 0.10088E-01 | - | - | 0.31493E-01 | 0.40090E-01 |
| 44 | 0.58552E+00 | -0.20027E+00 | 0.10366E+01 | 0.94517E-02 | - | - | 0.40556E-01 | 0.46245E-01 |
| 45 | 0.49988E+00 | -0.20027E+00 | 0.10393E+01 | 0.90841E-02 | - | - | 0.42581E-01 | 0.53539E-01 |
| 46 | 0.41412E+00 | -0.20027E+00 | 0.10334E+01 | 0.99799E-02 | - | - | 0.42575E-01 | 0.48080E-01 |
| 47 | 0.32836E+00 | -0.20027E+00 | 0.10347E+01 | 0.85395E-02 | - | - | 0.23939E-01 | 0.65673E-01 |
| 48 | 0.24260E+00 | -0.20027E+00 | 0.10141E+01 | 0.14112E-01 | - | - | -0.69307E-02 | 0.57939E-01 |
| 49 | 0.15684E+00 | -0.20027E+00 | 0.98434E+00 | 0.14011E-01 | - | - | -0.53994E-01 | 0.30973E-01 |
| 50 | 0.71204E-01 | -0.20027E+00 | 0.96824E+00 | 0.15344E-01 | - | - | -0.55190E-01 | 0.34936E-01 |
| 51 | -0.14556E-01 | -0.20027E+00 | 0.94712E+00 | 0.12097E-01 | - | - | -0.35828E-01 | 0.35490E-01 |
| 52 | -0.10019E+00 | -0.20027E+00 | 0.95296E+00 | 0.11220E-01 | - | - | -0.21294E-01 | 0.34642E-01 |

I1 = 0.0687 I2 = 2.6571 I3 = 0.0330 I4 = -2.4088

Lift = 0.3500

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 3 at y/c = 0.104

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.19991E+00 | 0.94708E+00 | 0.14449E-01 | - | - | 0.69869E-02 | 0.26737E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.92951E+00 | 0.15254E-01 | - | - | 0.26346E-01 | 0.23937E-01 |
| 3 | -0.10044E+00 | -0.66410E-01 | 0.91500E+00 | 0.17549E-01 | - | - | 0.45278E-01 | 0.27101E-01 |
| 4 | -0.10044E+00 | 0.27892E-03 | 0.93086E+00 | 0.13042E-01 | - | - | 0.11554E+00 | 0.28701E-01 |
| 5 | -0.10044E+00 | 0.66968E-01 | 0.98358E+00 | 0.12678E-01 | - | - | 0.14288E+00 | 0.19923E-01 |
| 6 | -0.10044E+00 | 0.13353E+00 | 0.10280E+01 | 0.13205E-01 | - | - | 0.13160E+00 | 0.22987E-01 |
| 7 | -0.10044E+00 | 0.20022E+00 | 0.10528E+01 | 0.11694E-01 | - | - | 0.11583E+00 | 0.20325E-01 |
| 8 | -0.99830E-01 | 0.20022E+00 | 0.10541E+01 | 0.95225E-02 | - | - | 0.10122E+00 | 0.16187E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.10934E+01 | 0.11225E-01 | - | - | 0.12514E+00 | 0.14258E-01 |
| 10 | 0.71569E-01 | 0.20022E+00 | 0.11371E+01 | 0.16388E-01 | - | - | 0.10554E+00 | 0.24818E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.11793E+01 | 0.11286E-01 | - | - | 0.62673E-01 | 0.22416E-01 |
| 12 | 0.24309E+00 | 0.20022E+00 | 0.11907E+01 | 0.11305E-01 | - | - | 0.14922E-01 | 0.23235E-01 |
| 13 | 0.32885E+00 | 0.20022E+00 | 0.11807E+01 | 0.10056E-01 | - | - | -0.27135E-01 | 0.23246E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11661E+01 | 0.12515E-01 | - | - | -0.58719E-01 | 0.20009E-01 |
| 15 | 0.50013E+00 | 0.20022E+00 | 0.11366E+01 | 0.11057E-01 | - | - | -0.84382E-01 | 0.14811E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.11152E+01 | 0.80291E-02 | - | - | -0.90689E-01 | 0.18253E-01 |
| 17 | 0.67165E+00 | 0.20022E+00 | 0.10928E+01 | 0.10591E-01 | - | - | -0.10049E+00 | 0.20560E-01 |
| 18 | 0.75728E+00 | 0.20022E+00 | 0.10777E+01 | 0.14142E-01 | - | - | -0.10100E+00 | 0.13202E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10585E+01 | 0.12503E-01 | - | - | -0.93012E-01 | 0.14923E-01 |
| 20 | 0.92868E+00 | 0.20022E+00 | 0.10439E+01 | 0.12302E-01 | - | - | -0.91751E-01 | 0.16105E-01 |
| 21 | 0.10146E+01 | 0.20022E+00 | 0.10356E+01 | 0.12982E-01 | - | - | -0.82071E-01 | 0.19917E-01 |
| 22 | 0.11001E+01 | 0.20022E+00 | 0.10302E+01 | 0.12538E-01 | - | - | -0.69970E-01 | 0.18006E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10300E+01 | 0.13279E-01 | - | - | -0.71635E-01 | 0.19854E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10208E+01 | 0.93623E-02 | - | - | -0.77808E-01 | 0.16597E-01 |
| 25 | 0.11001E+01 | 0.66482E-01 | 0.10151E+01 | 0.15850E-01 | - | - | -0.80123E-01 | 0.16708E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.94782E+00 | 0.51704E-01 | - | - | -0.11765E+00 | 0.30642E-01 |
| 27 | 0.11001E+01 | -0.66896E-01 | 0.89974E+00 | 0.59868E-01 | - | - | -0.17008E+00 | 0.53404E-01 |
| 28 | 0.11001E+01 | -0.13358E+00 | 0.98059E+00 | 0.18533E-01 | - | - | -0.78011E-01 | 0.21363E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.99508E+00 | 0.12291E-01 | - | - | -0.44113E-01 | 0.15615E-01 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.99734E+00 | 0.12629E-01 | - | - | -0.44581E-01 | 0.16674E-01 |
| 31 | 0.10142E+01 | -0.20027E+00 | 0.98870E+00 | 0.10233E-01 | - | - | -0.36510E-01 | 0.18028E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.99066E+00 | 0.10695E-01 | - | - | -0.27056E-01 | 0.20854E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.10023E+01 | 0.10127E-01 | - | - | -0.13290E-01 | 0.23068E-01 |
| 34 | 0.75704E+00 | -0.20027E+00 | 0.10161E+01 | 0.10730E-01 | - | - | -0.18357E-02 | 0.21230E-01 |
| 35 | 0.67116E+00 | -0.20027E+00 | 0.10255E+01 | 0.12139E-01 | - | - | -0.53697E-02 | 0.25088E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10358E+01 | 0.11346E-01 | - | - | -0.17331E-01 | 0.24847E-01 |
| 37 | 0.49964E+00 | -0.20027E+00 | 0.10409E+01 | 0.11890E-01 | - | - | -0.26568E-01 | 0.48270E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10380E+01 | 0.13635E-01 | - | - | -0.50043E-01 | 0.44218E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10259E+01 | 0.13190E-01 | - | - | -0.57568E-01 | 0.16091E-01 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.10098E+01 | 0.13545E-01 | - | - | -0.67297E-01 | 0.22569E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.98180E+00 | 0.16254E-01 | - | - | -0.68748E-01 | 0.18552E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.95984E+00 | 0.15114E-01 | - | - | -0.57137E-01 | 0.24121E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.94588E+00 | 0.16764E-01 | - | - | -0.38156E-01 | 0.29348E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.94699E+00 | 0.12054E-01 | - | - | 0.30542E-02 | 0.22789E-01 |

I1 = 0.0708 I2 = 2.6659 I3 = 0.0760 I4 = -2.4051

Lift = 0.4076

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20015E+00 | 0.93965E+00 | 0.17542E-01 | - | - | 0.13057E-01 | 0.24376E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.92330E+00 | 0.21191E-01 | - | - | 0.33873E-01 | 0.29816E-01 |
| 3 | -0.10032E+00 | -0.66410E-01 | 0.91100E+00 | 0.21021E-01 | - | - | 0.80491E-01 | 0.28620E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.93573E+00 | 0.16704E-01 | - | - | 0.13651E+00 | 0.28938E-01 |
| 5 | -0.10032E+00 | 0.66968E-01 | 0.99838E+00 | 0.15738E-01 | - | - | 0.15544E+00 | 0.27880E-01 |
| 6 | -0.10032E+00 | 0.13353E+00 | 0.10462E+01 | 0.12859E-01 | - | - | 0.14417E+00 | 0.27697E-01 |
| 7 | -0.10032E+00 | 0.20022E+00 | 0.10696E+01 | 0.14499E-01 | - | - | 0.11831E+00 | 0.24477E-01 |
| 8 | -0.99830E-01 | 0.20022E+00 | 0.10703E+01 | 0.15590E-01 | - | - | 0.11619E+00 | 0.25851E-01 |
| 9 | -0.14191E-01 | 0.20022E+00 | 0.11107E+01 | 0.14488E-01 | - | - | 0.13133E+00 | 0.31362E-01 |
| 10 | 0.71569E-01 | 0.20022E+00 | 0.11728E+01 | 0.15292E-01 | - | - | 0.11336E+00 | 0.20414E-01 |
| 11 | 0.15721E+00 | 0.20022E+00 | 0.12101E+01 | 0.11444E-01 | - | - | 0.66781E-01 | 0.34373E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.12139E+01 | 0.13068E-01 | - | - | 0.63107E-02 | 0.31756E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.11987E+01 | 0.12978E-01 | - | - | -0.36623E-01 | 0.36628E-01 |
| 14 | 0.41449E+00 | 0.20022E+00 | 0.11758E+01 | 0.11468E-01 | - | - | -0.69804E-01 | 0.33333E-01 |
| 15 | 0.50025E+00 | 0.20022E+00 | 0.11467E+01 | 0.12252E-01 | - | - | -0.95521E-01 | 0.29545E-01 |
| 16 | 0.58588E+00 | 0.20022E+00 | 0.11230E+01 | 0.12197E-01 | - | - | -0.11256E+00 | 0.23336E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.11044E+01 | 0.14089E-01 | - | - | -0.11977E+00 | 0.29335E-01 |
| 18 | 0.75728E+00 | 0.20022E+00 | 0.10820E+01 | 0.14212E-01 | - | - | -0.12097E+00 | 0.24545E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10659E+01 | 0.14216E-01 | - | - | -0.11706E+00 | 0.23674E-01 |
| 20 | 0.92880E+00 | 0.20022E+00 | 0.10521E+01 | 0.16107E-01 | - | - | -0.10895E+00 | 0.25639E-01 |
| 21 | 0.10144E+01 | 0.20022E+00 | 0.10418E+01 | 0.15147E-01 | - | - | -0.95668E-01 | 0.23936E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10320E+01 | 0.13568E-01 | - | - | -0.90315E-01 | 0.25096E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10344E+01 | 0.14177E-01 | - | - | -0.87582E-01 | 0.32098E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10254E+01 | 0.16277E-01 | - | - | -0.95293E-01 | 0.21490E-01 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10177E+01 | 0.15376E-01 | - | - | -0.98344E-01 | 0.23857E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.10085E+01 | 0.19081E-01 | - | - | -0.10214E+00 | 0.16309E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99099E+00 | 0.17473E-01 | - | - | -0.10045E+00 | 0.35068E-01 |
| 28 | 0.11002E+01 | -0.13358E+00 | 0.98827E+00 | 0.19352E-01 | - | - | -0.75099E-01 | 0.33609E-01 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.99114E+00 | 0.16704E-01 | - | - | -0.62429E-01 | 0.22196E-01 |
| 30 | 0.10996E+01 | -0.20027E+00 | 0.99250E+00 | 0.16928E-01 | - | - | -0.59679E-01 | 0.25728E-01 |
| 31 | 0.10140E+01 | -0.20027E+00 | 0.98718E+00 | 0.20064E-01 | - | - | -0.50522E-01 | 0.31048E-01 |
| 32 | 0.92844E+00 | -0.20027E+00 | 0.98580E+00 | 0.14468E-01 | - | - | -0.32709E-01 | 0.34265E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.99977E+00 | 0.15124E-01 | - | - | -0.25071E-01 | 0.22898E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10103E+01 | 0.13889E-01 | - | - | -0.18241E-01 | 0.30440E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10224E+01 | 0.14423E-01 | - | - | -0.20423E-01 | 0.35759E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10299E+01 | 0.15253E-01 | - | - | -0.20926E-01 | 0.37234E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10319E+01 | 0.14029E-01 | - | - | -0.25629E-01 | 0.40094E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10224E+01 | 0.15468E-01 | - | - | -0.42604E-01 | 0.44496E-01 |
| 39 | 0.32836E+00 | -0.20027E+00 | 0.10134E+01 | 0.17627E-01 | - | - | -0.66508E-01 | 0.30857E-01 |
| 40 | 0.24260E+00 | -0.20027E+00 | 0.99843E+00 | 0.20061E-01 | - | - | -0.76508E-01 | 0.33590E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.96325E+00 | 0.19987E-01 | - | - | -0.79914E-01 | 0.28571E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.93778E+00 | 0.20808E-01 | - | - | -0.65641E-01 | 0.40042E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.93154E+00 | 0.21601E-01 | - | - | -0.29457E-01 | 0.37916E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.94010E+00 | 0.17325E-01 | - | - | 0.14566E-02 | 0.30927E-01 |

I1 = 0.0827 I2 = 2.7003 I3 = 0.0728 I4 = -2.3828

Lift = 0.4730

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.93817E+00 | 0.24004E-01 | - | - | 0.16082E-01 | 0.37829E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.93064E+00 | 0.31750E-01 | - | - | 0.34734E-01 | 0.38749E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.91382E+00 | 0.25457E-01 | - | - | 0.78021E-01 | 0.39318E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.93935E+00 | 0.17069E-01 | - | - | 0.13451E+00 | 0.35263E-01 |
| 5 | -0.10019E+00 | 0.66968E-01 | 0.10088E+01 | 0.17590E-01 | - | - | 0.16155E+00 | 0.36087E-01 |
| 6 | -0.10019E+00 | 0.13353E+00 | 0.10521E+01 | 0.16165E-01 | - | - | 0.14151E+00 | 0.35038E-01 |
| 7 | -0.10019E+00 | 0.20022E+00 | 0.10829E+01 | 0.16983E-01 | - | - | 0.11965E+00 | 0.27424E-01 |
| 8 | -0.99708E-01 | 0.20022E+00 | 0.10798E+01 | 0.18547E-01 | - | - | 0.11051E+00 | 0.24529E-01 |
| 9 | -0.13949E-01 | 0.20022E+00 | 0.11253E+01 | 0.16283E-01 | - | - | 0.11700E+00 | 0.32505E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.11777E+01 | 0.15664E-01 | - | - | 0.10714E+00 | 0.45119E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.12258E+01 | 0.13298E-01 | - | - | 0.68958E-01 | 0.31771E-01 |
| 12 | 0.24309E+00 | 0.20022E+00 | 0.12331E+01 | 0.12585E-01 | - | - | 0.91301E-02 | 0.33024E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.12049E+01 | 0.16382E-01 | - | - | 0.56030E-02 | 0.54890E-01 |
| 14 | 0.41437E+00 | 0.20022E+00 | 0.11930E+01 | 0.13637E-01 | - | - | -0.10911E-01 | 0.53620E-01 |
| 15 | 0.50025E+00 | 0.20022E+00 | 0.11605E+01 | 0.17991E-01 | - | - | -0.36432E-01 | 0.58713E-01 |
| 16 | 0.58601E+00 | 0.20022E+00 | 0.11350E+01 | 0.13670E-01 | - | - | -0.74316E-01 | 0.55013E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.11186E+01 | 0.20105E-01 | - | - | -0.94283E-01 | 0.47675E-01 |
| 18 | 0.75740E+00 | 0.20022E+00 | 0.10989E+01 | 0.19476E-01 | - | - | -0.11506E+00 | 0.35693E-01 |
| 19 | 0.84292E+00 | 0.20022E+00 | 0.10785E+01 | 0.25068E-01 | - | - | -0.13601E+00 | 0.54636E-01 |
| 20 | 0.92880E+00 | 0.20022E+00 | 0.10842E+01 | 0.40142E-01 | - | - | -0.15779E+00 | 0.52756E-01 |
| 21 | 0.10144E+01 | 0.20022E+00 | 0.10545E+01 | 0.28197E-01 | - | - | -0.16866E+00 | 0.50020E-01 |
| 22 | 0.11002E+01 | 0.20022E+00 | 0.10500E+01 | 0.27074E-01 | - | - | -0.12395E+00 | 0.46712E-01 |
| 23 | 0.11002E+01 | 0.19986E+00 | 0.10483E+01 | 0.27536E-01 | - | - | -0.10182E+00 | 0.36043E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10387E+01 | 0.23672E-01 | - | - | -0.96145E-01 | 0.21294E-01 |
| 25 | 0.11002E+01 | 0.66482E-01 | 0.10207E+01 | 0.16965E-01 | - | - | -0.10026E+00 | 0.24452E-01 |
| 26 | 0.11002E+01 | -0.20709E-03 | 0.10065E+01 | 0.14401E-01 | - | - | -0.10478E+00 | 0.47589E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99496E+00 | 0.19132E-01 | - | - | -0.98288E-01 | 0.26706E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.99097E+00 | 0.22961E-01 | - | - | -0.89749E-01 | 0.44991E-01 |
| 29 | 0.11002E+01 | -0.20027E+00 | 0.99909E+00 | 0.24083E-01 | - | - | -0.74934E-01 | 0.45940E-01 |
| 30 | 0.10997E+01 | -0.20027E+00 | 0.10033E+01 | 0.27926E-01 | - | - | -0.71122E-01 | 0.42688E-01 |
| 31 | 0.10142E+01 | -0.20027E+00 | 0.99291E+00 | 0.24683E-01 | - | - | -0.70985E-01 | 0.46847E-01 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.99568E+00 | 0.22905E-01 | - | - | -0.64418E-01 | 0.47763E-01 |
| 33 | 0.84268E+00 | -0.20027E+00 | 0.99927E+00 | 0.15803E-01 | - | - | -0.49194E-01 | 0.47552E-01 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10144E+01 | 0.17977E-01 | - | - | -0.46837E-01 | 0.50120E-01 |
| 35 | 0.67116E+00 | -0.20027E+00 | 0.10235E+01 | 0.18930E-01 | - | - | -0.32170E-01 | 0.43279E-01 |
| 36 | 0.58564E+00 | -0.20027E+00 | 0.10425E+01 | 0.30280E-01 | - | - | -0.44032E-01 | 0.49354E-01 |
| 37 | 0.49964E+00 | -0.20027E+00 | 0.10297E+01 | 0.22790E-01 | - | - | -0.55850E-01 | 0.50720E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10248E+01 | 0.15903E-01 | - | - | -0.67812E-01 | 0.45600E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10054E+01 | 0.22026E-01 | - | - | -0.76823E-01 | 0.46558E-01 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.99159E+00 | 0.23347E-01 | - | - | -0.90572E-01 | 0.47779E-01 |
| 41 | 0.15696E+00 | -0.20027E+00 | 0.95976E+00 | 0.22743E-01 | - | - | -0.81121E-01 | 0.37879E-01 |
| 42 | 0.71326E-01 | -0.20027E+00 | 0.93786E+00 | 0.27641E-01 | - | - | -0.73425E-01 | 0.42507E-01 |
| 43 | -0.14434E-01 | -0.20027E+00 | 0.92372E+00 | 0.20379E-01 | - | - | -0.68388E-01 | 0.50311E-01 |
| 44 | -0.10007E+00 | -0.20027E+00 | 0.93446E+00 | 0.21446E-01 | - | - | -0.68910E-01 | 0.52315E-01 |

I1 = 0.0826 I2 = 2.7340 I3 = 0.0772 I4 = -2.3822

Lift = 0.5116

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 13 at y/c = -1.493

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.10208E+01 | 0.45192E-02 | - | - | 0.18484E-01 | 0.13415E-01 |
| 2 | -0.10044E+00 | -0.15982E+00 | 0.10200E+01 | 0.59549E-02 | - | - | 0.12360E-01 | 0.12469E-01 |
| 3 | -0.10044E+00 | -0.11986E+00 | 0.10191E+01 | 0.54871E-02 | - | - | 0.17918E-01 | 0.13773E-01 |
| 4 | -0.10044E+00 | -0.79893E-01 | 0.10172E+01 | 0.54884E-02 | - | - | 0.11191E-01 | 0.12506E-01 |
| 5 | -0.10044E+00 | -0.39928E-01 | 0.10188E+01 | 0.50918E-02 | - | - | 0.14927E-01 | 0.13243E-01 |
| 6 | -0.10044E+00 | 0.15778E-03 | 0.10186E+01 | 0.59514E-02 | - | - | 0.18489E-01 | 0.14804E-01 |
| 7 | -0.10044E+00 | 0.40123E-01 | 0.10183E+01 | 0.50208E-02 | - | - | 0.18700E-01 | 0.13260E-01 |
| 8 | -0.10044E+00 | 0.80087E-01 | 0.10197E+01 | 0.52382E-02 | - | - | 0.21217E-01 | 0.14340E-01 |
| 9 | -0.10044E+00 | 0.12017E+00 | 0.10205E+01 | 0.54258E-02 | - | - | 0.19188E-01 | 0.14327E-01 |
| 10 | -0.10044E+00 | 0.16014E+00 | 0.10194E+01 | 0.61915E-02 | - | - | 0.18628E-01 | 0.14004E-01 |
| 11 | -0.10044E+00 | 0.20010E+00 | 0.10203E+01 | 0.59977E-02 | - | - | 0.17388E-01 | 0.13115E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10198E+01 | 0.56093E-02 | - | - | 0.18093E-01 | 0.13227E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10205E+01 | 0.44604E-02 | - | - | 0.20216E-01 | 0.14487E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10200E+01 | 0.53834E-02 | - | - | 0.30419E-01 | 0.13710E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10224E+01 | 0.46972E-02 | - | - | 0.24551E-01 | 0.17703E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.10237E+01 | 0.49533E-02 | - | - | 0.28033E-01 | 0.20408E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.10239E+01 | 0.56952E-02 | - | - | 0.15367E-01 | 0.14560E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.10263E+01 | 0.67810E-02 | - | - | 0.30380E-01 | 0.15580E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.10282E+01 | 0.66136E-02 | - | - | 0.29554E-01 | 0.11994E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10329E+01 | 0.62729E-02 | - | - | 0.27725E-01 | 0.10880E-01 |
| 21 | 0.67152E+00 | 0.20010E+00 | 0.10396E+01 | 0.59360E-02 | - | - | 0.24310E-01 | 0.13285E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10425E+01 | 0.62921E-02 | - | - | 0.22664E-01 | 0.11824E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10363E+01 | 0.63845E-02 | - | - | 0.13080E-01 | 0.12006E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10333E+01 | 0.55007E-02 | - | - | 0.17176E-01 | 0.10902E-01 |
| 25 | 0.10144E+01 | 0.20010E+00 | 0.10250E+01 | 0.54703E-02 | - | - | 0.10207E-01 | 0.14084E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10218E+01 | 0.46088E-02 | - | - | 0.16447E-01 | 0.15218E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10226E+01 | 0.56985E-02 | - | - | 0.17124E-01 | 0.11387E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10207E+01 | 0.59195E-02 | - | - | 0.14327E-01 | 0.15481E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10175E+01 | 0.54466E-02 | - | - | 0.61668E-02 | 0.11880E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10143E+01 | 0.46787E-02 | - | - | -0.22723E-03 | 0.13040E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10128E+01 | 0.52601E-02 | - | - | 0.71812E-02 | 0.16703E-01 |
| 32 | 0.11001E+01 | -0.89220E-04 | 0.92703E+00 | 0.66462E-01 | - | - | -0.69709E-01 | 0.86736E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.10098E+01 | 0.58600E-02 | - | - | 0.14965E-01 | 0.22372E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.10140E+01 | 0.51489E-02 | - | - | 0.24417E-01 | 0.17884E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.10153E+01 | 0.50081E-02 | - | - | 0.26843E-01 | 0.18367E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10185E+01 | 0.56376E-02 | - | - | 0.31831E-01 | 0.14228E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10195E+01 | 0.54637E-02 | - | - | 0.27472E-01 | 0.12758E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10204E+01 | 0.46999E-02 | - | - | 0.32436E-01 | 0.11955E-01 |
| 39 | 0.10142E+01 | -0.20015E+00 | 0.10225E+01 | 0.47499E-02 | - | - | 0.21638E-01 | 0.14948E-01 |
| 40 | 0.92820E+00 | -0.20015E+00 | 0.10305E+01 | 0.52372E-02 | - | - | 0.97500E-03 | 0.80393E-01 |
| 41 | 0.84268E+00 | -0.20015E+00 | 0.10403E+01 | 0.57112E-02 | - | - | -0.11062E-01 | 0.44678E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10486E+01 | 0.54214E-02 | - | - | -0.77736E-01 | 0.86060E-01 |
| 43 | 0.67128E+00 | -0.20015E+00 | 0.10464E+01 | 0.61121E-02 | - | - | -0.11944E+00 | 0.84236E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10388E+01 | 0.75228E-02 | - | - | -0.14164E+00 | 0.50042E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10324E+01 | 0.54144E-02 | - | - | -0.16510E+00 | 0.52428E-01 |
| 46 | 0.41388E+00 | -0.20015E+00 | 0.10274E+01 | 0.65434E-02 | - | - | -0.18789E+00 | 0.51979E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10282E+01 | 0.55378E-02 | - | - | -0.21170E+00 | 0.51151E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10228E+01 | 0.53168E-02 | - | - | -0.20987E+00 | 0.49491E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10223E+01 | 0.50665E-02 | - | - | -0.18705E+00 | 0.62187E-01 |
| 50 | 0.71083E-01 | -0.20015E+00 | 0.10216E+01 | 0.50680E-02 | - | - | -0.20167E+00 | 0.52315E-01 |
| 51 | -0.14677E-01 | -0.20015E+00 | 0.10182E+01 | 0.54145E-02 | - | - | -0.16543E+00 | 0.82193E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.10175E+01 | 0.57857E-02 | - | - | -0.15753E+00 | 0.50287E-01 |

I1 = 0.0135 I2 = 2.4676 I3 = -0.0042 I4 = -2.4719

Lift = 0.0050

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 12 at y/c = -1.452

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10192E+01 | 0.58588E-02 | - | - | 0.13136E-01 | 0.13172E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.10194E+01 | 0.57892E-02 | - | - | 0.11673E-01 | 0.17793E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.10186E+01 | 0.56440E-02 | - | - | 0.15138E-01 | 0.12764E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.10176E+01 | 0.52635E-02 | - | - | 0.15387E-01 | 0.14671E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.10177E+01 | 0.61441E-02 | - | - | 0.10087E-01 | 0.13853E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.10171E+01 | 0.50945E-02 | - | - | 0.13812E-01 | 0.13476E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.10182E+01 | 0.59337E-02 | - | - | 0.17903E-01 | 0.15488E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.10177E+01 | 0.53762E-02 | - | - | 0.21375E-01 | 0.12080E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10189E+01 | 0.68254E-02 | - | - | 0.16652E-01 | 0.11198E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10195E+01 | 0.52628E-02 | - | - | 0.19251E-01 | 0.13652E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10205E+01 | 0.56219E-02 | - | - | 0.12731E-01 | 0.12187E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10206E+01 | 0.54716E-02 | - | - | 0.23723E-01 | 0.13243E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10193E+01 | 0.66082E-02 | - | - | 0.13724E-01 | 0.16727E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10187E+01 | 0.52484E-02 | - | - | 0.14691E-01 | 0.20690E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.10230E+01 | 0.60783E-02 | - | - | 0.22161E-01 | 0.13091E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.10251E+01 | 0.57421E-02 | - | - | 0.20093E-01 | 0.16463E-01 |
| 17 | 0.32897E+00 | 0.20010E+00 | 0.10237E+01 | 0.56192E-02 | - | - | 0.30078E-01 | 0.13236E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.10244E+01 | 0.50157E-02 | - | - | 0.30972E-01 | 0.15017E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.10283E+01 | 0.63380E-02 | - | - | 0.32627E-01 | 0.14465E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10312E+01 | 0.71232E-02 | - | - | 0.31396E-01 | 0.14228E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10384E+01 | 0.60304E-02 | - | - | 0.32245E-01 | 0.14997E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10436E+01 | 0.69963E-02 | - | - | 0.20562E-01 | 0.13090E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10401E+01 | 0.55337E-02 | - | - | 0.16601E-01 | 0.11519E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10310E+01 | 0.61146E-02 | - | - | 0.96823E-02 | 0.14645E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10245E+01 | 0.56598E-02 | - | - | 0.15083E-01 | 0.14757E-01 |
| 26 | 0.11003E+01 | 0.20010E+00 | 0.10187E+01 | 0.51173E-02 | - | - | 0.14315E-01 | 0.11905E-01 |
| 27 | 0.11003E+01 | 0.19998E+00 | 0.10201E+01 | 0.46380E-02 | - | - | 0.11290E-01 | 0.12756E-01 |
| 28 | 0.11003E+01 | 0.15989E+00 | 0.10184E+01 | 0.51747E-02 | - | - | 0.15570E-01 | 0.12599E-01 |
| 29 | 0.11003E+01 | 0.11993E+00 | 0.10149E+01 | 0.52388E-02 | - | - | 0.14325E-01 | 0.12590E-01 |
| 30 | 0.11003E+01 | 0.79844E-01 | 0.10107E+01 | 0.47006E-02 | - | - | 0.14935E-01 | 0.13022E-01 |
| 31 | 0.11003E+01 | 0.39880E-01 | 0.10069E+01 | 0.56559E-02 | - | - | 0.27475E-01 | 0.11151E-01 |
| 32 | 0.11003E+01 | -0.85220E-04 | 0.91056E+00 | 0.57052E-01 | - | - | 0.50564E-01 | 0.44556E-01 |
| 33 | 0.11003E+01 | -0.40171E-01 | 0.10030E+01 | 0.53885E-02 | - | - | 0.45775E-01 | 0.85676E-02 |
| 34 | 0.11003E+01 | -0.80136E-01 | 0.10101E+01 | 0.54239E-02 | - | - | 0.35522E-01 | 0.12469E-01 |
| 35 | 0.11003E+01 | -0.12010E+00 | 0.10148E+01 | 0.56939E-02 | - | - | 0.39342E-01 | 0.12487E-01 |
| 36 | 0.11003E+01 | -0.16007E+00 | 0.10160E+01 | 0.64834E-02 | - | - | 0.31805E-01 | 0.12650E-01 |
| 37 | 0.11003E+01 | -0.20015E+00 | 0.10169E+01 | 0.60625E-02 | - | - | 0.36185E-01 | 0.11346E-01 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 38 | 0.10997E+01 | -0.20015E+00 | 0.10170E+01 | 0.53220E-02 | - | - | 0.42889E-01 | 0.13207E-01 |
| 39 | 0.10140E+01 | -0.20015E+00 | 0.10203E+01 | 0.40931E-02 | - | - | 0.41527E-01 | 0.12477E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10294E+01 | 0.56725E-02 | - | - | 0.48168E-01 | 0.43626E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10397E+01 | 0.64443E-02 | - | - | 0.28241E-01 | 0.50519E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10491E+01 | 0.54522E-02 | - | - | -0.27336E-01 | 0.58642E-01 |
| 43 | 0.67116E+00 | -0.20015E+00 | 0.10514E+01 | 0.66938E-02 | - | - | -0.52888E-01 | 0.55182E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10442E+01 | 0.71182E-02 | - | - | -0.71989E-01 | 0.47853E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10361E+01 | 0.60503E-02 | - | - | -0.88381E-01 | 0.47491E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10270E+01 | 0.50132E-02 | - | - | -0.11781E+00 | 0.50917E-01 |
| 47 | 0.32812E+00 | -0.20015E+00 | 0.10271E+01 | 0.69013E-02 | - | - | -0.13438E+00 | 0.48030E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10200E+01 | 0.55554E-02 | - | - | -0.11752E+00 | 0.51008E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.10225E+01 | 0.54890E-02 | - | - | -0.65964E-01 | 0.43669E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10203E+01 | 0.51571E-02 | - | - | -0.71620E-01 | 0.46880E-01 |
| 51 | -0.14434E-01 | -0.20015E+00 | 0.10195E+01 | 0.52823E-02 | - | - | -0.81304E-02 | 0.30192E-01 |
| 52 | -0.10007E+00 | -0.20015E+00 | 0.10194E+01 | 0.49375E-02 | - | - | 0.36742E-02 | 0.31168E-01 |

I1 = 0.0126 I2 = 2.4672 I3 = -0.0239 I4 = -2.4733

Lift = -0.0174

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 11 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.10187E+01 | 0.81583E-02 | - | - | 0.57920E-02 | 0.16555E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.10183E+01 | 0.75036E-02 | - | - | 0.10141E-01 | 0.14965E-01 |
| 3 | -0.10044E+00 | -0.66531E-01 | 0.10202E+01 | 0.69610E-02 | - | - | 0.12773E-01 | 0.13209E-01 |
| 4 | -0.10044E+00 | 0.15778E-03 | 0.10172E+01 | 0.11319E-01 | - | - | 0.13976E-01 | 0.12174E-01 |
| 5 | -0.10044E+00 | 0.66846E-01 | 0.10192E+01 | 0.88221E-02 | - | - | 0.18474E-01 | 0.18387E-01 |
| 6 | -0.10044E+00 | 0.13341E+00 | 0.10197E+01 | 0.78101E-02 | - | - | 0.18147E-01 | 0.13448E-01 |
| 7 | -0.10044E+00 | 0.20010E+00 | 0.10200E+01 | 0.69316E-02 | - | - | 0.21270E-01 | 0.14096E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10205E+01 | 0.78652E-02 | - | - | 0.23875E-01 | 0.12563E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10198E+01 | 0.80394E-02 | - | - | 0.16588E-01 | 0.11970E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10201E+01 | 0.81420E-02 | - | - | 0.21700E-01 | 0.12904E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10212E+01 | 0.71443E-02 | - | - | 0.24921E-01 | 0.17154E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.10253E+01 | 0.62594E-02 | - | - | 0.27599E-01 | 0.15919E-01 |
| 13 | 0.32909E+00 | 0.20010E+00 | 0.10246E+01 | 0.84625E-02 | - | - | 0.25960E-01 | 0.16167E-01 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.10260E+01 | 0.77236E-02 | - | - | 0.26298E-01 | 0.15110E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.10331E+01 | 0.74533E-02 | - | - | 0.35221E-01 | 0.14574E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10366E+01 | 0.93056E-02 | - | - | 0.37009E-01 | 0.10583E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10447E+01 | 0.81876E-02 | - | - | 0.34076E-01 | 0.14117E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10468E+01 | 0.73916E-02 | - | - | 0.25823E-01 | 0.15142E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10426E+01 | 0.76750E-02 | - | - | 0.10546E-01 | 0.12944E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10356E+01 | 0.90934E-02 | - | - | 0.83539E-02 | 0.13236E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10265E+01 | 0.95822E-02 | - | - | 0.10155E-01 | 0.16595E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10195E+01 | 0.71833E-02 | - | - | 0.12504E-01 | 0.14988E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10223E+01 | 0.78590E-02 | - | - | 0.19315E-01 | 0.13658E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10186E+01 | 0.89910E-02 | - | - | 0.17063E-01 | 0.10234E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10082E+01 | 0.10387E-01 | - | - | 0.28713E-01 | 0.14271E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.88018E+00 | 0.55373E-01 | - | - | 0.44678E-01 | 0.50461E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.98307E+00 | 0.24688E-01 | - | - | 0.48173E-01 | 0.13038E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.10114E+01 | 0.86094E-02 | - | - | 0.45554E-01 | 0.13845E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.10181E+01 | 0.69776E-02 | - | - | 0.45760E-01 | 0.11211E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10205E+01 | 0.95604E-02 | - | - | 0.36535E-01 | 0.15257E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.10235E+01 | 0.93207E-02 | - | - | 0.38624E-01 | 0.18046E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.10326E+01 | 0.66165E-02 | - | - | 0.15410E-01 | 0.41878E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.10426E+01 | 0.78868E-02 | - | - | -0.17198E-01 | 0.44478E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10541E+01 | 0.80460E-02 | - | - | -0.54248E-01 | 0.43157E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10574E+01 | 0.88644E-02 | - | - | -0.87129E-01 | 0.41611E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10514E+01 | 0.65535E-02 | - | - | -0.10423E+00 | 0.48890E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10384E+01 | 0.84792E-02 | - | - | -0.13705E+00 | 0.40723E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10332E+01 | 0.79974E-02 | - | - | -0.17334E+00 | 0.44144E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.10295E+01 | 0.85751E-02 | - | - | -0.19399E+00 | 0.39885E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10264E+01 | 0.66933E-02 | - | - | -0.22586E+00 | 0.45127E-01 |
| 41 | 0.15672E+00 | -0.20015E+00 | 0.10244E+01 | 0.83821E-02 | - | - | -0.24548E+00 | 0.41242E-01 |
| 42 | 0.71083E-01 | -0.20015E+00 | 0.10179E+01 | 0.80705E-02 | - | - | -0.26915E+00 | 0.47031E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.10159E+01 | 0.87531E-02 | - | - | -0.27428E+00 | 0.47550E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.10207E+01 | 0.60459E-02 | - | - | -0.28344E+00 | 0.41807E-01 |

I1 = 0.0115 I2 = 2.4726 I3 = -0.0288 I4 = -2.4800

Lift = -0.0247

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 9 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10115E+01 | 0.87158E-02 | - | - | -0.84751E-02 | 0.20498E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.10044E+01 | 0.77251E-02 | - | - | 0.87054E-02 | 0.18801E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.10008E+01 | 0.66307E-02 | - | - | 0.12294E-01 | 0.12363E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.10000E+01 | 0.70142E-02 | - | - | 0.47033E-02 | 0.12737E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.99932E+00 | 0.50959E-02 | - | - | 0.26665E-01 | 0.10041E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10061E+01 | 0.43981E-02 | - | - | 0.33484E-01 | 0.94915E-02 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10115E+01 | 0.62668E-02 | - | - | 0.36675E-01 | 0.10040E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10129E+01 | 0.63633E-02 | - | - | 0.41370E-01 | 0.11284E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.10114E+01 | 0.63070E-02 | - | - | 0.39794E-01 | 0.11127E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.10140E+01 | 0.64780E-02 | - | - | 0.50940E-01 | 0.15019E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.10244E+01 | 0.67717E-02 | - | - | 0.64322E-01 | 0.85502E-02 |
| 12 | 0.24321E+00 | 0.20010E+00 | 0.10361E+01 | 0.71812E-02 | - | - | 0.70550E-01 | 0.11622E-01 |
| 13 | 0.32897E+00 | 0.20010E+00 | 0.10480E+01 | 0.83980E-02 | - | - | 0.69777E-01 | 0.11817E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.10639E+01 | 0.79460E-02 | - | - | 0.60859E-01 | 0.11742E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.10709E+01 | 0.74353E-02 | - | - | 0.43037E-01 | 0.88597E-02 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10695E+01 | 0.57864E-02 | - | - | 0.24752E-01 | 0.94072E-02 |
| 17 | 0.67177E+00 | 0.20010E+00 | 0.10582E+01 | 0.64378E-02 | - | - | 0.90266E-02 | 0.10099E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10510E+01 | 0.63979E-02 | - | - | 0.86824E-03 | 0.92915E-02 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10397E+01 | 0.70483E-02 | - | - | -0.34847E-02 | 0.89713E-02 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10247E+01 | 0.70367E-02 | - | - | -0.53364E-02 | 0.94154E-02 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10160E+01 | 0.64302E-02 | - | - | 0.12688E-01 | 0.91939E-02 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10108E+01 | 0.57048E-02 | - | - | 0.14241E-01 | 0.90762E-02 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10136E+01 | 0.64436E-02 | - | - | 0.15380E-01 | 0.10847E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10037E+01 | 0.71479E-02 | - | - | 0.18419E-01 | 0.95950E-02 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.99495E+00 | 0.51438E-02 | - | - | 0.21426E-01 | 0.62613E-02 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.79024E+00 | 0.59334E-01 | - | - | 0.40006E-01 | 0.50242E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.85076E+00 | 0.50904E-01 | - | - | 0.53415E-01 | 0.68443E-02 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.96915E+00 | 0.30852E-01 | - | - | 0.57117E-01 | 0.85632E-02 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10071E+01 | 0.49205E-02 | - | - | 0.55368E-01 | 0.86027E-02 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10071E+01 | 0.56896E-02 | - | - | 0.55164E-01 | 0.94009E-02 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.10091E+01 | 0.69525E-02 | - | - | 0.61041E-01 | 0.10582E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.10158E+01 | 0.63144E-02 | - | - | 0.69849E-01 | 0.21846E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10313E+01 | 0.52098E-02 | - | - | 0.31745E-01 | 0.47076E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.10440E+01 | 0.63660E-02 | - | - | 0.22407E-01 | 0.50443E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10562E+01 | 0.71371E-02 | - | - | 0.34707E-02 | 0.46370E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10724E+01 | 0.70919E-02 | - | - | 0.51210E-01 | 0.11533E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10837E+01 | 0.81507E-02 | - | - | 0.30775E-01 | 0.10844E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20015E+00 | 0.10792E+01 | 0.93925E-02 | - | - | 0.88438E-02 | 0.13542E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10683E+01 | 0.84262E-02 | - | - | -0.88954E-02 | 0.30888E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.10558E+01 | 0.97173E-02 | - | - | -0.37877E-01 | 0.19076E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.10313E+01 | 0.79152E-02 | - | - | -0.26827E-01 | 0.13508E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.10165E+01 | 0.82073E-02 | - | - | -0.14346E-01 | 0.17382E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.10106E+01 | 0.89409E-02 | - | - | -0.66096E-02 | 0.12108E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.10091E+01 | 0.58348E-02 | - | - | 0.12591E-02 | 0.12724E-01 |

I1 = 0.0131 I2 = 2.4924 I3 = -0.0303 I4 = -2.4998

Lift = -0.0247

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 10 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10086E+01 | 0.60323E-02 | - | - | 0.34530E-02 | 0.12468E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.10046E+01 | 0.65290E-02 | - | - | 0.40815E-02 | 0.14153E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.10004E+01 | 0.55911E-02 | - | - | 0.17536E-01 | 0.11299E-01 |
| 4 | -0.10032E+00 | 0.27892E-03 | 0.99940E+00 | 0.52316E-02 | - | - | 0.25521E-01 | 0.16313E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10001E+01 | 0.63991E-02 | - | - | 0.23492E-01 | 0.17490E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10049E+01 | 0.58418E-02 | - | - | 0.31544E-01 | 0.17802E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10100E+01 | 0.62578E-02 | - | - | 0.31690E-01 | 0.13847E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10113E+01 | 0.55320E-02 | - | - | 0.34600E-01 | 0.13792E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10118E+01 | 0.48263E-02 | - | - | 0.29008E-01 | 0.11115E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10129E+01 | 0.64984E-02 | - | - | 0.41482E-01 | 0.13112E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10279E+01 | 0.73226E-02 | - | - | 0.62036E-01 | 0.19052E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.10353E+01 | 0.73059E-02 | - | - | 0.65844E-01 | 0.14638E-01 |
| 13 | 0.32897E+00 | 0.20010E+00 | 0.10553E+01 | 0.65534E-02 | - | - | 0.71916E-01 | 0.11250E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.10671E+01 | 0.79178E-02 | - | - | 0.62915E-01 | 0.10013E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.10700E+01 | 0.59272E-02 | - | - | 0.41380E-01 | 0.10528E-01 |
| 16 | 0.58613E+00 | 0.20010E+00 | 0.10681E+01 | 0.73338E-02 | - | - | 0.29848E-01 | 0.10278E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10598E+01 | 0.64854E-02 | - | - | 0.13713E-01 | 0.10011E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10527E+01 | 0.54943E-02 | - | - | 0.41055E-02 | 0.10106E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10363E+01 | 0.55777E-02 | - | - | -0.49646E-03 | 0.92028E-02 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10241E+01 | 0.60717E-02 | - | - | 0.35436E-03 | 0.89811E-02 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10172E+01 | 0.57109E-02 | - | - | 0.73376E-02 | 0.11155E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10129E+01 | 0.58194E-02 | - | - | 0.14272E-01 | 0.84825E-02 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10121E+01 | 0.53603E-02 | - | - | 0.95213E-02 | 0.10052E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10044E+01 | 0.56270E-02 | - | - | 0.16118E-01 | 0.90581E-02 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.99631E+00 | 0.62480E-02 | - | - | 0.22040E-01 | 0.69002E-02 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.82253E+00 | 0.62892E-01 | - | - | 0.41826E-01 | 0.47491E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.95584E+00 | 0.40169E-01 | - | - | 0.55949E-01 | 0.73515E-02 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.99957E+00 | 0.55285E-02 | - | - | 0.58104E-01 | 0.92572E-02 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.10082E+01 | 0.55188E-02 | - | - | 0.59065E-01 | 0.10117E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10085E+01 | 0.52387E-02 | - | - | 0.57371E-01 | 0.10353E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.10096E+01 | 0.59285E-02 | - | - | 0.64557E-01 | 0.87216E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.10171E+01 | 0.62069E-02 | - | - | 0.64447E-01 | 0.26183E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10305E+01 | 0.59422E-02 | - | - | 0.59987E-01 | 0.36176E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.10433E+01 | 0.59051E-02 | - | - | 0.23641E-01 | 0.47663E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10617E+01 | 0.58951E-02 | - | - | -0.19453E-01 | 0.48617E-01 |
| 36 | 0.58560E+00 | -0.20015E+00 | 0.10708E+01 | 0.64106E-02 | - | - | -0.42026E-01 | 0.47063E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10802E+01 | 0.62924E-02 | - | - | -0.60452E-01 | 0.47237E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10781E+01 | 0.84316E-02 | - | - | -0.37871E-01 | 0.49129E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10721E+01 | 0.97360E-02 | - | - | -0.41467E-01 | 0.39380E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.10526E+01 | 0.95435E-02 | - | - | -0.56419E-01 | 0.42296E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10316E+01 | 0.70156E-02 | - | - | -0.71841E-01 | 0.45002E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.10172E+01 | 0.51596E-02 | - | - | -0.33966E-01 | 0.25663E-01 |
| 43 | -0.14434E-01 | -0.20015E+00 | 0.10107E+01 | 0.49907E-02 | - | - | -0.18074E-01 | 0.15766E-01 |
| 44 | -0.10032E+00 | -0.20015E+00 | 0.10088E+01 | 0.51127E-02 | - | - | -0.64768E-02 | 0.16708E-01 |

I1 = 0.0161 I2 = 2.4947 I3 = -0.0306 I4 = -2.5006

Lift = -0.0205

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 8 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.98707E+00 | 0.11020E-01 | - | - | -0.30851E-01 | 0.14375E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.95110E+00 | 0.81481E-02 | - | - | -0.41073E-01 | 0.20242E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.91052E+00 | 0.81795E-02 | - | - | -0.42368E-02 | 0.16957E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.91067E+00 | 0.77652E-02 | - | - | 0.49052E-01 | 0.17508E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.94670E+00 | 0.82372E-02 | - | - | 0.82946E-01 | 0.17292E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.97845E+00 | 0.76880E-02 | - | - | 0.81565E-01 | 0.14592E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10028E+01 | 0.70643E-02 | - | - | 0.74134E-01 | 0.15728E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10019E+01 | 0.67512E-02 | - | - | 0.78078E-01 | 0.12067E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.10158E+01 | 0.84533E-02 | - | - | 0.98830E-01 | 0.15737E-01 |
| 10 | 0.71811E-01 | 0.20010E+00 | 0.10452E+01 | 0.83646E-02 | - | - | 0.10902E+00 | 0.14359E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10819E+01 | 0.72972E-02 | - | - | 0.98779E-01 | 0.11601E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.10992E+01 | 0.85593E-02 | - | - | 0.72458E-01 | 0.11549E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.11053E+01 | 0.79605E-02 | - | - | 0.43086E-01 | 0.85895E-02 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11031E+01 | 0.82004E-02 | - | - | 0.23995E-01 | 0.87028E-02 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.10883E+01 | 0.67498E-02 | - | - | 0.56582E-02 | 0.88875E-02 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10819E+01 | 0.68655E-02 | - | - | -0.53102E-02 | 0.10735E-01 |
| 17 | 0.67177E+00 | 0.20010E+00 | 0.10666E+01 | 0.60466E-02 | - | - | -0.13462E-01 | 0.78622E-02 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10503E+01 | 0.55625E-02 | - | - | -0.16967E-01 | 0.91628E-02 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10353E+01 | 0.57840E-02 | - | - | -0.14635E-01 | 0.84228E-02 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10218E+01 | 0.67305E-02 | - | - | -0.86991E-02 | 0.71401E-02 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10137E+01 | 0.59341E-02 | - | - | 0.43675E-02 | 0.83099E-02 |
| 22 | 0.11003E+01 | 0.20010E+00 | 0.10102E+01 | 0.63466E-02 | - | - | 0.12803E-01 | 0.84055E-02 |
| 23 | 0.11003E+01 | 0.19998E+00 | 0.10104E+01 | 0.67171E-02 | - | - | 0.16184E-01 | 0.94235E-02 |
| 24 | 0.11003E+01 | 0.13317E+00 | 0.10004E+01 | 0.66772E-02 | - | - | 0.19213E-01 | 0.75287E-02 |
| 25 | 0.11003E+01 | 0.66603E-01 | 0.99120E+00 | 0.72641E-02 | - | - | 0.31254E-01 | 0.61041E-02 |
| 26 | 0.11003E+01 | -0.85220E-04 | 0.82325E+00 | 0.58092E-01 | - | - | 0.59268E-01 | 0.49525E-01 |
| 27 | 0.11003E+01 | -0.66774E-01 | 0.95161E+00 | 0.33133E-01 | - | - | 0.69398E-01 | 0.67478E-02 |
| 28 | 0.11003E+01 | -0.13346E+00 | 0.99849E+00 | 0.79207E-02 | - | - | 0.68192E-01 | 0.68978E-02 |
| 29 | 0.11003E+01 | -0.20015E+00 | 0.10054E+01 | 0.70069E-02 | - | - | 0.65669E-01 | 0.82423E-02 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.10040E+01 | 0.59358E-02 | - | - | 0.67228E-01 | 0.76260E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.10066E+01 | 0.72095E-02 | - | - | 0.74239E-01 | 0.85344E-02 |
| 32 | 0.92820E+00 | -0.20015E+00 | 0.10123E+01 | 0.69818E-02 | - | - | 0.80771E-01 | 0.11510E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10171E+01 | 0.58133E-02 | - | - | 0.60595E-01 | 0.48664E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10347E+01 | 0.55595E-02 | - | - | 0.63916E-01 | 0.44631E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10486E+01 | 0.61416E-02 | - | - | 0.90198E-01 | 0.13045E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10631E+01 | 0.66859E-02 | - | - | 0.84901E-01 | 0.11786E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10757E+01 | 0.75400E-02 | - | - | 0.44943E-01 | 0.51108E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10873E+01 | 0.64728E-02 | - | - | 0.11042E-02 | 0.48495E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.10891E+01 | 0.81175E-02 | - | - | -0.38258E-01 | 0.52581E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10884E+01 | 0.87156E-02 | - | - | -0.83077E-01 | 0.52982E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.10888E+01 | 0.10303E-01 | - | - | -0.12228E+00 | 0.50093E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.10607E+01 | 0.79750E-02 | - | - | -0.13130E+00 | 0.46745E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.10136E+01 | 0.10113E-01 | - | - | -0.13851E+00 | 0.54433E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.98148E+00 | 0.68505E-02 | - | - | -0.14031E+00 | 0.49659E-01 |

I1 = 0.0248 I2 = 2.5395 I3 = -0.0387 I4 = -2.5164

Lift = 0.0093

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 7 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10044E+00 | -0.20003E+00 | 0.97216E+00 | 0.12441E-01 | - | - | -0.21504E-01 | 0.17868E-01 |
| 2 | -0.10044E+00 | -0.13322E+00 | 0.94711E+00 | 0.15574E-01 | - | - | -0.17692E-01 | 0.19150E-01 |
| 3 | -0.10044E+00 | -0.66531E-01 | 0.91877E+00 | 0.15428E-01 | - | - | 0.19159E-01 | 0.21278E-01 |
| 4 | -0.10044E+00 | 0.15778E-03 | 0.92733E+00 | 0.14295E-01 | - | - | 0.68064E-01 | 0.19748E-01 |
| 5 | -0.10044E+00 | 0.66846E-01 | 0.96490E+00 | 0.12037E-01 | - | - | 0.10243E+00 | 0.20061E-01 |
| 6 | -0.10044E+00 | 0.13341E+00 | 0.99986E+00 | 0.11253E-01 | - | - | 0.10077E+00 | 0.22338E-01 |
| 7 | -0.10044E+00 | 0.20022E+00 | 0.10205E+01 | 0.10338E-01 | - | - | 0.87726E-01 | 0.14571E-01 |
| 8 | -0.99587E-01 | 0.20022E+00 | 0.10238E+01 | 0.10042E-01 | - | - | 0.87125E-01 | 0.21256E-01 |
| 9 | -0.14070E-01 | 0.20022E+00 | 0.10435E+01 | 0.11981E-01 | - | - | 0.97139E-01 | 0.15593E-01 |
| 10 | 0.71690E-01 | 0.20022E+00 | 0.10787E+01 | 0.10223E-01 | - | - | 0.10623E+00 | 0.14004E-01 |
| 11 | 0.15733E+00 | 0.20022E+00 | 0.11189E+01 | 0.14262E-01 | - | - | 0.94558E-01 | 0.16193E-01 |
| 12 | 0.24297E+00 | 0.20022E+00 | 0.11378E+01 | 0.98193E-02 | - | - | 0.64077E-01 | 0.17062E-01 |
| 13 | 0.32873E+00 | 0.20022E+00 | 0.11396E+01 | 0.10846E-01 | - | - | 0.28653E-01 | 0.20522E-01 |
| 14 | 0.41461E+00 | 0.20022E+00 | 0.11269E+01 | 0.11720E-01 | - | - | -0.12664E-03 | 0.15068E-01 |
| 15 | 0.50037E+00 | 0.20022E+00 | 0.11097E+01 | 0.86750E-02 | - | - | -0.17400E-01 | 0.20794E-01 |
| 16 | 0.58601E+00 | 0.20022E+00 | 0.10941E+01 | 0.10438E-01 | - | - | -0.34617E-01 | 0.18880E-01 |
| 17 | 0.67152E+00 | 0.20022E+00 | 0.10829E+01 | 0.12551E-01 | - | - | -0.42654E-01 | 0.16941E-01 |
| 18 | 0.75753E+00 | 0.20022E+00 | 0.10616E+01 | 0.81485E-02 | - | - | -0.47571E-01 | 0.14924E-01 |
| 19 | 0.84304E+00 | 0.20022E+00 | 0.10449E+01 | 0.74704E-02 | - | - | -0.40886E-01 | 0.14863E-01 |
| 20 | 0.92868E+00 | 0.20022E+00 | 0.10323E+01 | 0.86548E-02 | - | - | -0.35144E-01 | 0.15766E-01 |
| 21 | 0.10146E+01 | 0.20022E+00 | 0.10226E+01 | 0.11136E-01 | - | - | -0.26478E-01 | 0.19699E-01 |
| 22 | 0.11001E+01 | 0.20022E+00 | 0.10213E+01 | 0.10366E-01 | - | - | -0.13238E-01 | 0.17831E-01 |
| 23 | 0.11001E+01 | 0.19986E+00 | 0.10178E+01 | 0.10015E-01 | - | - | -0.18103E-01 | 0.15674E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10113E+01 | 0.12466E-01 | - | - | -0.42977E-02 | 0.17389E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.99914E+00 | 0.15807E-01 | - | - | 0.17459E-01 | 0.98764E-02 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.95014E+00 | 0.35497E-01 | - | - | 0.88546E-01 | 0.33380E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99606E+00 | 0.10519E-01 | - | - | 0.14195E+00 | 0.16310E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.10024E+01 | 0.85441E-02 | - | - | 0.11456E+00 | 0.12093E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.10068E+01 | 0.10657E-01 | - | - | 0.73898E-01 | 0.19016E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10076E+01 | 0.96490E-02 | - | - | 0.70448E-01 | 0.15406E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.10054E+01 | 0.91252E-02 | - | - | 0.80481E-01 | 0.13997E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.10099E+01 | 0.90604E-02 | - | - | 0.78941E-01 | 0.43741E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10219E+01 | 0.10426E-01 | - | - | 0.69609E-01 | 0.41292E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10316E+01 | 0.77549E-02 | - | - | 0.63837E-01 | 0.47483E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10465E+01 | 0.11225E-01 | - | - | 0.50739E-01 | 0.48010E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10615E+01 | 0.10616E-01 | - | - | 0.42853E-01 | 0.48573E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10675E+01 | 0.79127E-02 | - | - | 0.32763E-01 | 0.42288E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20015E+00 | 0.10769E+01 | 0.89609E-02 | - | - | 0.21076E-01 | 0.44026E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10781E+01 | 0.12986E-01 | - | - | 0.60514E-03 | 0.47992E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.10760E+01 | 0.13230E-01 | - | - | -0.12137E-01 | 0.46218E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10586E+01 | 0.12322E-01 | - | - | -0.24692E-01 | 0.38408E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.10357E+01 | 0.15439E-01 | - | - | -0.44579E-01 | 0.45430E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.99560E+00 | 0.17256E-01 | - | - | -0.59377E-01 | 0.45502E-01 |
| 44 | -0.10032E+00 | -0.20015E+00 | 0.97768E+00 | 0.17049E-01 | - | - | -0.79984E-01 | 0.53287E-01 |

I1 = 0.0406 I2 = 2.5918 I3 = -0.0520 I4 = -2.4950

Lift = 0.0854

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 6 at y/c = -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97148E+00 | 0.87760E-02 | - | - | -0.53499E-02 | 0.31688E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95757E+00 | 0.91556E-02 | - | - | -0.41480E-02 | 0.35617E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.93959E+00 | 0.82241E-02 | - | - | -0.51208E-02 | 0.26876E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92355E+00 | 0.85999E-02 | - | - | 0.13736E-01 | 0.23889E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91796E+00 | 0.72070E-02 | - | - | 0.45031E-01 | 0.24300E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.92974E+00 | 0.79098E-02 | - | - | 0.73416E-01 | 0.26982E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95382E+00 | 0.81473E-02 | - | - | 0.10507E+00 | 0.35512E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.97730E+00 | 0.77287E-02 | - | - | 0.10376E+00 | 0.26289E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.99821E+00 | 0.82747E-02 | - | - | 0.10187E+00 | 0.24797E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10143E+01 | 0.93181E-02 | - | - | 0.93267E-01 | 0.21288E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10244E+01 | 0.85492E-02 | - | - | 0.86492E-01 | 0.24433E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10246E+01 | 0.10277E-01 | - | - | 0.86941E-01 | 0.21685E-01 |
| 13 | -0.13949E-01 | 0.20010E+00 | 0.10493E+01 | 0.93904E-02 | - | - | 0.10774E+00 | 0.33754E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.10879E+01 | 0.12604E-01 | - | - | 0.11836E+00 | 0.37795E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.11257E+01 | 0.10010E-01 | - | - | 0.11090E+00 | 0.40888E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.11458E+01 | 0.98254E-02 | - | - | 0.82263E-01 | 0.43935E-01 |
| 17 | 0.32897E+00 | 0.20010E+00 | 0.11424E+01 | 0.89937E-02 | - | - | 0.85941E-01 | 0.57172E-01 |
| 18 | 0.41449E+00 | 0.20010E+00 | 0.11337E+01 | 0.12063E-01 | - | - | 0.26742E-01 | 0.86892E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.11212E+01 | 0.13415E-01 | - | - | 0.36759E-01 | 0.48529E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10993E+01 | 0.10486E-01 | - | - | 0.50157E-01 | 0.55160E-01 |
| 21 | 0.67177E+00 | 0.20010E+00 | 0.10789E+01 | 0.91985E-02 | - | - | 0.63825E-01 | 0.55808E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.10651E+01 | 0.87572E-02 | - | - | 0.31646E-01 | 0.75948E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10487E+01 | 0.12057E-01 | - | - | 0.48243E-01 | 0.50358E-01 |
| 24 | 0.92892E+00 | 0.20010E+00 | 0.10336E+01 | 0.11973E-01 | - | - | 0.50449E-01 | 0.51394E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10311E+01 | 0.12074E-01 | - | - | 0.80349E-01 | 0.53655E-01 |
| 26 | 0.11003E+01 | 0.20010E+00 | 0.10217E+01 | 0.10118E-01 | - | - | 0.97279E-01 | 0.51080E-01 |
| 27 | 0.11003E+01 | 0.19998E+00 | 0.10218E+01 | 0.11848E-01 | - | - | 0.14320E-01 | 0.55284E-01 |
| 28 | 0.11003E+01 | 0.15989E+00 | 0.10165E+01 | 0.13673E-01 | - | - | -0.15073E-01 | 0.16794E-01 |
| 29 | 0.11003E+01 | 0.11993E+00 | 0.10098E+01 | 0.14642E-01 | - | - | -0.13206E-01 | 0.12834E-01 |
| 30 | 0.11003E+01 | 0.79844E-01 | 0.10041E+01 | 0.10450E-01 | - | - | 0.13971E-02 | 0.15709E-01 |
| 31 | 0.11003E+01 | 0.39880E-01 | 0.99644E+00 | 0.10352E-01 | - | - | 0.21784E-01 | 0.18937E-01 |
| 32 | 0.11003E+01 | -0.85220E-04 | 0.97193E+00 | 0.33510E-01 | - | - | 0.97527E-01 | 0.30930E-01 |
| 33 | 0.11003E+01 | -0.40171E-01 | 0.99449E+00 | 0.12553E-01 | - | - | 0.19241E+00 | 0.21720E-01 |
| 34 | 0.11003E+01 | -0.80136E-01 | 0.99645E+00 | 0.10909E-01 | - | - | 0.22316E+00 | 0.23119E-01 |
| 35 | 0.11003E+01 | -0.12010E+00 | 0.10019E+01 | 0.10070E-01 | - | - | 0.14457E+00 | 0.11312E-01 |
| 36 | 0.11003E+01 | -0.16007E+00 | 0.10097E+01 | 0.13478E-01 | - | - | 0.93642E-01 | 0.12731E-01 |
| 37 | 0.11003E+01 | -0.20015E+00 | 0.10100E+01 | 0.11894E-01 | - | - | 0.70439E-01 | 0.20623E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10096E+01 | 0.12081E-01 | - | - | 0.82389E-01 | 0.38690E-01 |
| 39 | 0.10140E+01 | -0.20015E+00 | 0.10036E+01 | 0.85342E-02 | - | - | 0.96699E-01 | 0.36678E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.10064E+01 | 0.81491E-02 | - | - | 0.11135E+00 | 0.47013E-01 |
| 41 | 0.84244E+00 | -0.20015E+00 | 0.10207E+01 | 0.70775E-02 | - | - | 0.11100E+00 | 0.39370E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10341E+01 | 0.92105E-02 | - | - | 0.11360E+00 | 0.50103E-01 |
| 43 | 0.67128E+00 | -0.20015E+00 | 0.10484E+01 | 0.65522E-02 | - | - | 0.11891E+00 | 0.43695E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10587E+01 | 0.87012E-02 | - | - | 0.12216E+00 | 0.49389E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10698E+01 | 0.88914E-02 | - | - | 0.11710E+00 | 0.58689E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10758E+01 | 0.97669E-02 | - | - | 0.11426E+00 | 0.52802E-01 |
| 47 | 0.32824E+00 | -0.20015E+00 | 0.10775E+01 | 0.11558E-01 | - | - | 0.11182E+00 | 0.47583E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10775E+01 | 0.10840E-01 | - | - | 0.11202E+00 | 0.52679E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10550E+01 | 0.12119E-01 | - | - | 0.11395E+00 | 0.71317E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10249E+01 | 0.11670E-01 | - | - | 0.12065E+00 | 0.56513E-01 |
| 51 | -0.14677E-01 | -0.20015E+00 | 0.99199E+00 | 0.12872E-01 | - | - | 0.11077E+00 | 0.74506E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.97107E+00 | 0.10433E-01 | - | - | 0.11662E+00 | 0.52334E-01 |

I1 = 0.0452 I2 = 2.6038 I3 = -0.0634 I4 = -2.4917

Lift = 0.0939

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 5 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97016E+00 | 0.92259E-02 | - | - | -0.15501E-01 | 0.37074E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95599E+00 | 0.89692E-02 | - | - | -0.12170E-01 | 0.29317E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.93975E+00 | 0.93537E-02 | - | - | -0.17929E-02 | 0.34250E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92458E+00 | 0.92294E-02 | - | - | 0.15135E-01 | 0.29955E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.92054E+00 | 0.89558E-02 | - | - | 0.47018E-01 | 0.31984E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93252E+00 | 0.84437E-02 | - | - | 0.76326E-01 | 0.33796E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95521E+00 | 0.77888E-02 | - | - | 0.96420E-01 | 0.32494E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.97934E+00 | 0.79590E-02 | - | - | 0.10502E+00 | 0.29348E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10016E+01 | 0.84771E-02 | - | - | 0.10448E+00 | 0.32556E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10177E+01 | 0.86048E-02 | - | - | 0.97239E-01 | 0.32505E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10295E+01 | 0.85069E-02 | - | - | 0.91511E-01 | 0.29907E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10265E+01 | 0.96904E-02 | - | - | 0.81246E-01 | 0.25920E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10551E+01 | 0.87988E-02 | - | - | 0.10429E+00 | 0.23892E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.10922E+01 | 0.10887E-01 | - | - | 0.10484E+00 | 0.31768E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.11336E+01 | 0.11069E-01 | - | - | 0.96311E-01 | 0.38023E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.11498E+01 | 0.91634E-02 | - | - | 0.72336E-01 | 0.47312E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.11509E+01 | 0.89618E-02 | - | - | 0.50269E-01 | 0.59947E-01 |
| 18 | 0.41461E+00 | 0.20010E+00 | 0.11344E+01 | 0.83894E-02 | - | - | 0.59833E-02 | 0.40416E-01 |
| 19 | 0.50025E+00 | 0.20010E+00 | 0.11163E+01 | 0.82610E-02 | - | - | -0.19338E-01 | 0.41780E-01 |
| 20 | 0.58588E+00 | 0.20010E+00 | 0.10995E+01 | 0.73996E-02 | - | - | -0.39092E-01 | 0.42367E-01 |
| 21 | 0.67152E+00 | 0.20010E+00 | 0.10812E+01 | 0.74742E-02 | - | - | -0.49135E-01 | 0.31861E-01 |
| 22 | 0.75740E+00 | 0.20010E+00 | 0.10651E+01 | 0.83687E-02 | - | - | -0.54682E-01 | 0.28463E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10495E+01 | 0.63211E-02 | - | - | -0.53541E-01 | 0.36418E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10341E+01 | 0.59380E-02 | - | - | -0.42491E-01 | 0.35193E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10267E+01 | 0.72458E-02 | - | - | -0.38965E-01 | 0.26929E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10215E+01 | 0.65785E-02 | - | - | -0.27017E-01 | 0.36624E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10211E+01 | 0.70822E-02 | - | - | -0.21672E-01 | 0.38191E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10169E+01 | 0.80562E-02 | - | - | -0.26077E-01 | 0.34060E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10125E+01 | 0.85492E-02 | - | - | -0.25651E-01 | 0.31906E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10056E+01 | 0.73391E-02 | - | - | -0.20710E-01 | 0.29849E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.99881E+00 | 0.77942E-02 | - | - | 0.15985E-03 | 0.37013E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.98857E+00 | 0.22951E-01 | - | - | 0.57088E-01 | 0.40258E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.92333E+00 | 0.64712E-01 | - | - | 0.13693E+00 | 0.48931E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.81489E+00 | 0.50839E-01 | - | - | 0.14513E+00 | 0.53509E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.96852E+00 | 0.38427E-01 | - | - | 0.93733E-01 | 0.51120E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10067E+01 | 0.96627E-02 | - | - | 0.71183E-01 | 0.41491E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10074E+01 | 0.86450E-02 | - | - | 0.67570E-01 | 0.45798E-01 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20015E+00 | 0.10056E+01 | 0.65662E-02 | - | - | 0.64653E-01 | 0.37989E-01 |
| 39 | 0.10140E+01 | -0.20015E+00 | 0.10019E+01 | 0.63344E-02 | - | - | 0.55245E-01 | 0.39899E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10040E+01 | 0.64292E-02 | - | - | 0.68053E-01 | 0.45177E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10192E+01 | 0.78869E-02 | - | - | 0.85162E-01 | 0.37263E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10337E+01 | 0.71701E-02 | - | - | 0.79953E-01 | 0.49127E-01 |
| 43 | 0.67104E+00 | -0.20015E+00 | 0.10460E+01 | 0.66626E-02 | - | - | 0.87857E-01 | 0.47995E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10570E+01 | 0.78350E-02 | - | - | 0.93852E-01 | 0.51072E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10688E+01 | 0.80867E-02 | - | - | 0.89844E-01 | 0.51731E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10710E+01 | 0.71723E-02 | - | - | 0.10040E+00 | 0.53197E-01 |
| 47 | 0.32824E+00 | -0.20015E+00 | 0.10694E+01 | 0.69392E-02 | - | - | 0.98747E-01 | 0.48194E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10602E+01 | 0.10714E-01 | - | - | 0.87831E-01 | 0.65759E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.10435E+01 | 0.10544E-01 | - | - | 0.30167E-01 | 0.80833E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10100E+01 | 0.10346E-01 | - | - | 0.25812E-01 | 0.67778E-01 |
| 51 | -0.14677E-01 | -0.20015E+00 | 0.97603E+00 | 0.94787E-02 | - | - | 0.15203E-01 | 0.58517E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.96817E+00 | 0.85278E-02 | | | 0.24505E-01 | 0.47411E-01 |

I1 = 0.0452 I2 = 2.6087 I3 = -0.0363 I4 = -2.4768

Lift = 0.1407

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 4 at y/c = 0.052

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.97015E+00 | 0.80168E-02 | - | - | -0.18137E-01 | 0.21654E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.95367E+00 | 0.90116E-02 | - | - | -0.74472E-02 | 0.18563E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94036E+00 | 0.10109E-01 | - | - | -0.31822E-02 | 0.17457E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92461E+00 | 0.88876E-02 | - | - | 0.15762E-01 | 0.23094E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91989E+00 | 0.94997E-02 | - | - | 0.52696E-01 | 0.22101E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.93053E+00 | 0.81284E-02 | - | - | 0.77078E-01 | 0.20656E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.95806E+00 | 0.83617E-02 | - | - | 0.10235E+00 | 0.24199E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.98255E+00 | 0.77368E-02 | - | - | 0.99858E-01 | 0.19619E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.10091E+01 | 0.10003E-01 | - | - | 0.10414E+00 | 0.24932E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10238E+01 | 0.87095E-02 | - | - | 0.97911E-01 | 0.16317E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10337E+01 | 0.94404E-02 | - | - | 0.88063E-01 | 0.20002E-01 |
| 12 | -0.99587E-01 | 0.20010E+00 | 0.10366E+01 | 0.10258E-01 | - | - | 0.92594E-01 | 0.22093E-01 |
| 13 | -0.13949E-01 | 0.20010E+00 | 0.10619E+01 | 0.89827E-02 | - | - | 0.10218E+00 | 0.16422E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.11037E+01 | 0.92289E-02 | - | - | 0.10172E+00 | 0.13766E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.11420E+01 | 0.85744E-02 | - | - | 0.77069E-01 | 0.13988E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.11556E+01 | 0.10372E-01 | - | - | 0.35847E-01 | 0.17986E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.11528E+01 | 0.80558E-02 | - | - | -0.33797E-02 | 0.13628E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.11386E+01 | 0.86742E-02 | - | - | -0.33880E-01 | 0.12383E-01 |
| 19 | 0.50037E+00 | 0.20010E+00 | 0.11214E+01 | 0.76673E-02 | - | - | -0.51719E-01 | 0.14871E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.11031E+01 | 0.75783E-02 | - | - | -0.66715E-01 | 0.11544E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10835E+01 | 0.88556E-02 | - | - | -0.74372E-01 | 0.98877E-02 |
| 22 | 0.75753E+00 | 0.20010E+00 | 0.10658E+01 | 0.75775E-02 | - | - | -0.74889E-01 | 0.14858E-01 |
| 23 | 0.84304E+00 | 0.20010E+00 | 0.10491E+01 | 0.77365E-02 | - | - | -0.70783E-01 | 0.11996E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10393E+01 | 0.82863E-02 | - | - | -0.63394E-01 | 0.13375E-01 |
| 25 | 0.10147E+01 | 0.20010E+00 | 0.10286E+01 | 0.70970E-02 | - | - | -0.54697E-01 | 0.15013E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10229E+01 | 0.87078E-02 | - | - | -0.48211E-01 | 0.14240E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10258E+01 | 0.65751E-02 | - | - | -0.47972E-01 | 0.13498E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10200E+01 | 0.72000E-02 | - | - | -0.51979E-01 | 0.14821E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10166E+01 | 0.64844E-02 | - | - | -0.55020E-01 | 0.11425E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10117E+01 | 0.84235E-02 | - | - | -0.57120E-01 | 0.10462E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10057E+01 | 0.70327E-02 | - | - | -0.71290E-01 | 0.14058E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.86735E+00 | 0.71681E-01 | - | - | -0.13238E+00 | 0.56531E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.91097E+00 | 0.64677E-01 | - | - | -0.19367E+00 | 0.46963E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.81865E+00 | 0.58241E-01 | - | - | -0.11629E+00 | 0.61550E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.85173E+00 | 0.58570E-01 | - | - | -0.15686E-01 | 0.51761E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.99386E+00 | 0.23016E-01 | - | - | -0.21592E-02 | 0.13757E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10060E+01 | 0.70155E-02 | - | - | 0.65182E-02 | 0.14009E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10995E+01 | -0.20015E+00 | 0.10056E+01 | 0.75777E-02 | - | - | 0.69092E-02 | 0.13536E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.10013E+01 | 0.70802E-02 | - | - | 0.12992E-01 | 0.24826E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10016E+01 | 0.73458E-02 | - | - | 0.26622E-01 | 0.50423E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10133E+01 | 0.76846E-02 | - | - | 0.44684E-01 | 0.43047E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10335E+01 | 0.70697E-02 | - | - | 0.46738E-01 | 0.43332E-01 |
| 43 | 0.67104E+00 | -0.20015E+00 | 0.10464E+01 | 0.76883E-02 | - | - | 0.55385E-01 | 0.39590E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10549E+01 | 0.73190E-02 | - | - | 0.60982E-01 | 0.44439E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.10603E+01 | 0.75363E-02 | - | - | 0.61250E-01 | 0.54512E-01 |
| 46 | 0.41388E+00 | -0.20015E+00 | 0.10669E+01 | 0.64714E-02 | - | - | 0.50719E-01 | 0.54527E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10678E+01 | 0.96383E-02 | - | - | 0.51982E-01 | 0.57581E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10534E+01 | 0.88031E-02 | - | - | 0.30783E-01 | 0.69581E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10308E+01 | 0.12746E-01 | - | - | -0.24492E-01 | 0.55369E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.99623E+00 | 0.10861E-01 | - | - | -0.33330E-01 | 0.49847E-01 |
| 51 | -0.14677E-01 | -0.20015E+00 | 0.97150E+00 | 0.97985E-02 | - | - | -0.34877E-01 | 0.37574E-01 |
| 52 | -0.10032E+00 | -0.20015E+00 | 0.96924E+00 | 0.73365E-02 | - | - | -0.17251E-01 | 0.41076E-01 |

I1 = 0.0457 I2 = 2.6188 I3 = 0.0574 I4 = -2.4659

Lift = 0.2560

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 3 at y/c = 0.104

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20015E+00 | 0.96331E+00 | 0.12163E-01 | - | - | -0.16637E-01 | 0.21594E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.94298E+00 | 0.14205E-01 | - | - | -0.70805E-02 | 0.18512E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.91958E+00 | 0.11571E-01 | - | - | 0.33928E-01 | 0.22769E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.92955E+00 | 0.10739E-01 | - | - | 0.88291E-01 | 0.22130E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.97382E+00 | 0.11679E-01 | - | - | 0.11132E+00 | 0.17794E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10156E+01 | 0.90329E-02 | - | - | 0.10411E+00 | 0.16477E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10357E+01 | 0.97801E-02 | - | - | 0.87598E-01 | 0.14801E-01 |
| 8 | -0.99465E-01 | 0.20010E+00 | 0.10349E+01 | 0.93107E-02 | - | - | 0.87542E-01 | 0.16847E-01 |
| 9 | -0.13949E-01 | 0.20010E+00 | 0.10666E+01 | 0.10556E-01 | - | - | 0.10494E+00 | 0.15998E-01 |
| 10 | 0.71811E-01 | 0.20010E+00 | 0.11103E+01 | 0.13467E-01 | - | - | 0.96784E-01 | 0.16317E-01 |
| 11 | 0.15745E+00 | 0.20010E+00 | 0.11477E+01 | 0.11573E-01 | - | - | 0.67476E-01 | 0.13775E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.11652E+01 | 0.87741E-02 | - | - | 0.19505E-01 | 0.12551E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.11597E+01 | 0.97649E-02 | - | - | -0.16699E-01 | 0.15690E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11384E+01 | 0.75077E-02 | - | - | -0.49412E-01 | 0.13452E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.11239E+01 | 0.13181E-01 | - | - | -0.67817E-01 | 0.84270E-02 |
| 16 | 0.58613E+00 | 0.20010E+00 | 0.11072E+01 | 0.11613E-01 | - | - | -0.79521E-01 | 0.12096E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10852E+01 | 0.89668E-02 | - | - | -0.84595E-01 | 0.92476E-02 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10690E+01 | 0.10223E-01 | - | - | -0.86324E-01 | 0.10322E-01 |
| 19 | 0.84316E+00 | 0.20010E+00 | 0.10540E+01 | 0.12936E-01 | - | - | -0.83137E-01 | 0.11605E-01 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10412E+01 | 0.12015E-01 | - | - | -0.78906E-01 | 0.11170E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10323E+01 | 0.11120E-01 | - | - | -0.67213E-01 | 0.11683E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10261E+01 | 0.97746E-02 | - | - | -0.65396E-01 | 0.12956E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10280E+01 | 0.15310E-01 | - | - | -0.59955E-01 | 0.10872E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10176E+01 | 0.10531E-01 | - | - | -0.71586E-01 | 0.12536E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10086E+01 | 0.91802E-02 | - | - | -0.94046E-01 | 0.13536E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.98270E+00 | 0.35433E-01 | - | - | -0.15070E+00 | 0.32523E-01 |
| 27 | 0.11002E+01 | -0.66896E-01 | 0.96306E+00 | 0.40708E-01 | - | - | -0.25804E+00 | 0.37741E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.99088E+00 | 0.20075E-01 | - | - | -0.75259E-01 | 0.26375E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10012E+01 | 0.10818E-01 | - | - | -0.26443E-01 | 0.11932E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10030E+01 | 0.11463E-01 | - | - | -0.24809E-01 | 0.12173E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.99908E+00 | 0.14282E-01 | - | - | -0.15302E-01 | 0.14598E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.10002E+01 | 0.10186E-01 | - | - | -0.34780E-02 | 0.17668E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10102E+01 | 0.11204E-01 | - | - | -0.44633E-03 | 0.35809E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.10261E+01 | 0.10276E-01 | - | - | 0.16134E-02 | 0.33886E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10414E+01 | 0.11638E-01 | - | - | -0.20668E-02 | 0.30446E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10537E+01 | 0.94959E-02 | - | - | -0.14405E-01 | 0.39267E-01 |
| 37 | 0.49988E+00 | -0.20015E+00 | 0.10571E+01 | 0.78122E-02 | - | - | -0.25056E-01 | 0.47715E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41388E+00 | -0.20015E+00 | 0.10646E+01 | 0.94793E-02 | - | - | -0.45978E-01 | 0.46150E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10546E+01 | 0.11960E-01 | - | - | -0.55354E-01 | 0.34565E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.10445E+01 | 0.99077E-02 | - | - | -0.68545E-01 | 0.38094E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10205E+01 | 0.15505E-01 | - | - | -0.78341E-01 | 0.27815E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.99127E+00 | 0.14147E-01 | - | - | -0.86189E-01 | 0.40493E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.97084E+00 | 0.17926E-01 | - | - | -0.85566E-01 | 0.46015E-01 |
| 44 | -0.10032E+00 | -0.20015E+00 | 0.96710E+00 | 0.17971E-01 | - | - | -0.68634E-01 | 0.46296E-01 |

I1 = 0.0490 I2 = 2.6286 I3 = 0.0880 I4 = -2.4541

Lift = 0.3115

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99465E-01 | -0.20003E+00 | 0.94844E+00 | 0.11358E-01 | - | - | 0.17601E-02 | 0.10645E-01 |
| 2 | -0.99465E-01 | -0.13322E+00 | 0.92802E+00 | 0.14044E-01 | - | - | 0.19580E-01 | 0.11619E-01 |
| 3 | -0.99465E-01 | -0.66531E-01 | 0.91329E+00 | 0.14489E-01 | - | - | 0.53768E-01 | 0.23095E-01 |
| 4 | -0.99465E-01 | 0.15778E-03 | 0.93363E+00 | 0.14355E-01 | - | - | 0.11000E+00 | 0.23132E-01 |
| 5 | -0.99465E-01 | 0.66846E-01 | 0.99221E+00 | 0.13277E-01 | - | - | 0.13651E+00 | 0.19682E-01 |
| 6 | -0.99465E-01 | 0.13341E+00 | 0.10358E+01 | 0.10548E-01 | - | - | 0.12197E+00 | 0.17628E-01 |
| 7 | -0.99465E-01 | 0.20010E+00 | 0.10573E+01 | 0.10388E-01 | - | - | 0.10041E+00 | 0.17475E-01 |
| 8 | -0.10019E+00 | 0.20010E+00 | 0.10568E+01 | 0.99040E-02 | - | - | 0.97959E-01 | 0.21310E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10979E+01 | 0.10127E-01 | - | - | 0.11439E+00 | 0.18494E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11476E+01 | 0.12828E-01 | - | - | 0.91916E-01 | 0.13850E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.11926E+01 | 0.96251E-02 | - | - | 0.49967E-01 | 0.13665E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.11955E+01 | 0.12191E-01 | - | - | -0.59258E-02 | 0.13922E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.11839E+01 | 0.12467E-01 | - | - | -0.48004E-01 | 0.15247E-01 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.11632E+01 | 0.11614E-01 | - | - | -0.81476E-01 | 0.11085E-01 |
| 15 | 0.50037E+00 | 0.20010E+00 | 0.11359E+01 | 0.74330E-02 | - | - | -0.10109E+00 | 0.10995E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11151E+01 | 0.74647E-02 | - | - | -0.11023E+00 | 0.12753E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10939E+01 | 0.78104E-02 | - | - | -0.11750E+00 | 0.12609E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10770E+01 | 0.98676E-02 | - | - | -0.12061E+00 | 0.16269E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10614E+01 | 0.91574E-02 | - | - | -0.11412E+00 | 0.18612E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10440E+01 | 0.13046E-01 | - | - | -0.10837E+00 | 0.14511E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10380E+01 | 0.10421E-01 | - | - | -0.96732E-01 | 0.14130E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10317E+01 | 0.10042E-01 | - | - | -0.88974E-01 | 0.13908E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10304E+01 | 0.10124E-01 | - | - | -0.90196E-01 | 0.16315E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10229E+01 | 0.92205E-02 | - | - | -0.10020E+00 | 0.12916E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10152E+01 | 0.12099E-01 | - | - | -0.10345E+00 | 0.11401E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10049E+01 | 0.12734E-01 | - | - | -0.10609E+00 | 0.11461E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99375E+00 | 0.14409E-01 | - | - | -0.10088E+00 | 0.77239E-02 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98290E+00 | 0.18233E-01 | - | - | -0.79546E-01 | 0.17188E-01 |
| 29 | 0.11001E+01 | -0.20027E+00 | 0.99091E+00 | 0.95151E-02 | - | - | -0.65772E-01 | 0.12201E-01 |
| 30 | 0.10995E+01 | -0.20027E+00 | 0.99367E+00 | 0.11454E-01 | - | - | -0.62121E-01 | 0.85917E-02 |
| 31 | 0.10140E+01 | -0.20027E+00 | 0.98659E+00 | 0.10633E-01 | - | - | -0.50743E-01 | 0.81581E-02 |
| 32 | 0.92832E+00 | -0.20027E+00 | 0.98616E+00 | 0.88799E-02 | - | - | -0.32769E-01 | 0.95674E-02 |
| 33 | 0.84244E+00 | -0.20027E+00 | 0.99964E+00 | 0.81516E-02 | - | - | -0.18881E-01 | 0.75996E-02 |
| 34 | 0.75692E+00 | -0.20027E+00 | 0.10154E+01 | 0.10157E-01 | - | - | -0.21164E-01 | 0.10810E-01 |
| 35 | 0.67128E+00 | -0.20027E+00 | 0.10315E+01 | 0.10292E-01 | - | - | -0.25994E-01 | 0.10519E-01 |
| 36 | 0.58540E+00 | -0.20027E+00 | 0.10398E+01 | 0.10441E-01 | - | - | -0.38115E-01 | 0.14040E-01 |
| 37 | 0.49976E+00 | -0.20027E+00 | 0.10394E+01 | 0.92994E-02 | - | - | -0.48511E-01 | 0.90723E-02 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20027E+00 | 0.10433E+01 | 0.10948E-01 | - | - | -0.62552E-01 | 0.17219E-01 |
| 39 | 0.32848E+00 | -0.20027E+00 | 0.10309E+01 | 0.10940E-01 | - | - | -0.79937E-01 | 0.98535E-02 |
| 40 | 0.24272E+00 | -0.20027E+00 | 0.10097E+01 | 0.14352E-01 | - | - | -0.88872E-01 | 0.10926E-01 |
| 41 | 0.15672E+00 | -0.20027E+00 | 0.97595E+00 | 0.16417E-01 | - | - | -0.86742E-01 | 0.13361E-01 |
| 42 | 0.71083E-01 | -0.20027E+00 | 0.95299E+00 | 0.15565E-01 | - | - | -0.68332E-01 | 0.18253E-01 |
| 43 | -0.14556E-01 | -0.20027E+00 | 0.94077E+00 | 0.15182E-01 | - | - | -0.35967E-01 | 0.19284E-01 |
| 44 | -0.10019E+00 | -0.20027E+00 | 0.94249E+00 | 0.12046E-01 | - | - | 0.71186E-02 | 0.17403E-01 |

I1 = 0.0662 I2 = 2.6736 I3 = 0.0759 I4 = -2.4028

Lift = 0.4129

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.93942E+00 | 0.10961E-01 | - | - | 0.79005E-02 | 0.13277E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.91930E+00 | 0.12603E-01 | - | - | 0.31107E-01 | 0.14594E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.91188E+00 | 0.11466E-01 | - | - | 0.70182E-01 | 0.26635E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.94279E+00 | 0.89314E-02 | - | - | 0.12974E+00 | 0.25371E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10040E+01 | 0.10642E-01 | - | - | 0.14796E+00 | 0.24145E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10514E+01 | 0.99727E-02 | - | - | 0.13570E+00 | 0.18037E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10746E+01 | 0.87230E-02 | - | - | 0.11386E+00 | 0.16007E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10683E+01 | 0.81812E-02 | - | - | 0.96204E-01 | 0.17421E-01 |
| 9 | -0.13949E-01 | 0.20010E+00 | 0.11190E+01 | 0.13082E-01 | - | - | 0.11988E+00 | 0.23332E-01 |
| 10 | 0.71811E-01 | 0.20010E+00 | 0.11762E+01 | 0.12526E-01 | - | - | 0.10569E+00 | 0.14842E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.12146E+01 | 0.10496E-01 | - | - | 0.52316E-01 | 0.17958E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.12245E+01 | 0.93761E-02 | - | - | -0.33245E-02 | 0.14296E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.12020E+01 | 0.87134E-02 | - | - | -0.56959E-01 | 0.12528E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11767E+01 | 0.88830E-02 | - | - | -0.87122E-01 | 0.14342E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11508E+01 | 0.81775E-02 | - | - | -0.10163E+00 | 0.16319E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11283E+01 | 0.99967E-02 | - | - | -0.11548E+00 | 0.14589E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.11046E+01 | 0.10257E-01 | - | - | -0.12432E+00 | 0.14541E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10868E+01 | 0.77880E-02 | - | - | -0.12314E+00 | 0.91567E-02 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10694E+01 | 0.10195E-01 | - | - | -0.11748E+00 | 0.17467E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10519E+01 | 0.74892E-02 | - | - | -0.11422E+00 | 0.18704E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10439E+01 | 0.10081E-01 | - | - | -0.10408E+00 | 0.19497E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10368E+01 | 0.87921E-02 | - | - | -0.92564E-01 | 0.13026E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10379E+01 | 0.11130E-01 | - | - | -0.88718E-01 | 0.16078E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10280E+01 | 0.80401E-02 | - | - | -0.97016E-01 | 0.11577E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10223E+01 | 0.10933E-01 | - | - | -0.98970E-01 | 0.12176E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.10049E+01 | 0.80671E-02 | - | - | -0.10343E+00 | 0.20407E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.98967E+00 | 0.10270E-01 | - | - | -0.98653E-01 | 0.13980E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.98830E+00 | 0.21142E-01 | - | - | -0.72426E-01 | 0.25818E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.99387E+00 | 0.85001E-02 | - | - | -0.61441E-01 | 0.13661E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.99261E+00 | 0.63803E-02 | - | - | -0.57914E-01 | 0.13528E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98941E+00 | 0.13323E-01 | - | - | -0.49709E-01 | 0.14982E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.99059E+00 | 0.88813E-02 | - | - | -0.51731E-01 | 0.44440E-01 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.10020E+01 | 0.71682E-02 | - | - | -0.42572E-01 | 0.38174E-01 |
| 34 | 0.75680E+00 | -0.20015E+00 | 0.10185E+01 | 0.90865E-02 | - | - | -0.46931E-01 | 0.48019E-01 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10278E+01 | 0.71679E-02 | - | - | -0.51412E-01 | 0.40832E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10308E+01 | 0.76735E-02 | - | - | -0.50100E-01 | 0.35357E-01 |
| 37 | 0.49964E+00 | -0.20015E+00 | 0.10282E+01 | 0.90014E-02 | - | - | -0.56273E-01 | 0.38840E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.10233E+01 | 0.10352E-01 | - | - | -0.76502E-01 | 0.55480E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.10231E+01 | 0.13351E-01 | - | - | -0.87527E-01 | 0.36735E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.99259E+00 | 0.11113E-01 | - | - | -0.95145E-01 | 0.35709E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.97067E+00 | 0.13135E-01 | - | - | -0.98403E-01 | 0.35989E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.93239E+00 | 0.10950E-01 | - | - | -0.92839E-01 | 0.42359E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.92714E+00 | 0.14148E-01 | - | - | -0.96564E-01 | 0.55131E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.93722E+00 | 0.11924E-01 | - | - | -0.98646E-01 | 0.54425E-01 |

I1 = 0.0775 I2 = 2.7092 I3 = 0.0728 I4 = -2.3874

Lift = 0.4721

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 6 at y/c = -1.493

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10212E+01 | 0.78764E-02 | - | - | 0.79167E-02 | 0.22036E-01 |
| 2 | -0.10019E+00 | -0.15982E+00 | 0.10212E+01 | 0.67977E-02 | - | - | 0.11871E-01 | 0.17444E-01 |
| 3 | -0.10019E+00 | -0.11986E+00 | 0.10203E+01 | 0.74633E-02 | - | - | 0.85356E-02 | 0.17392E-01 |
| 4 | -0.10019E+00 | -0.79893E-01 | 0.10191E+01 | 0.80013E-02 | - | - | -0.23903E-02 | 0.16720E-01 |
| 5 | -0.10019E+00 | -0.39928E-01 | 0.10201E+01 | 0.87025E-02 | - | - | 0.84102E-02 | 0.19134E-01 |
| 6 | -0.10019E+00 | 0.15778E-03 | 0.10195E+01 | 0.10178E-01 | - | - | 0.11138E-01 | 0.16818E-01 |
| 7 | -0.10019E+00 | 0.40123E-01 | 0.10170E+01 | 0.69068E-02 | - | - | 0.11241E-01 | 0.18889E-01 |
| 8 | -0.10019E+00 | 0.80087E-01 | 0.10170E+01 | 0.93446E-02 | - | - | 0.11487E-01 | 0.21184E-01 |
| 9 | -0.10019E+00 | 0.12017E+00 | 0.10170E+01 | 0.82212E-02 | - | - | 0.97906E-02 | 0.18151E-01 |
| 10 | -0.10019E+00 | 0.16014E+00 | 0.10174E+01 | 0.71661E-02 | - | - | 0.98210E-02 | 0.17597E-01 |
| 11 | -0.10019E+00 | 0.20010E+00 | 0.10180E+01 | 0.85356E-02 | - | - | 0.15422E-01 | 0.18054E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10178E+01 | 0.78994E-02 | - | - | 0.97431E-02 | 0.20745E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10163E+01 | 0.81045E-02 | - | - | 0.15472E-01 | 0.15257E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.10152E+01 | 0.64598E-02 | - | - | 0.19545E-01 | 0.26378E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.10208E+01 | 0.80493E-02 | - | - | 0.21406E-01 | 0.26288E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.10167E+01 | 0.78102E-02 | - | - | 0.23803E-01 | 0.27540E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.10166E+01 | 0.67538E-02 | - | - | 0.24033E-01 | 0.24242E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.10169E+01 | 0.64557E-02 | - | - | 0.19111E-01 | 0.19169E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.10177E+01 | 0.74752E-02 | - | - | 0.19837E-01 | 0.19858E-01 |
| 20 | 0.58613E+00 | 0.20010E+00 | 0.10151E+01 | 0.85153E-02 | - | - | 0.16378E-01 | 0.16620E-01 |
| 21 | 0.67177E+00 | 0.20010E+00 | 0.10228E+01 | 0.70297E-02 | - | - | 0.20881E-01 | 0.18010E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10303E+01 | 0.66860E-02 | - | - | 0.23818E-01 | 0.21030E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10330E+01 | 0.77832E-02 | - | - | 0.17710E-01 | 0.22294E-01 |
| 24 | 0.92868E+00 | 0.20010E+00 | 0.10270E+01 | 0.60143E-02 | - | - | 0.98842E-02 | 0.17693E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10237E+01 | 0.78792E-02 | - | - | 0.11671E-01 | 0.16782E-01 |
| 26 | 0.11002E+01 | 0.20010E+00 | 0.10195E+01 | 0.67672E-02 | - | - | -0.19658E-02 | 0.18711E-01 |
| 27 | 0.11002E+01 | 0.19998E+00 | 0.10218E+01 | 0.73222E-02 | - | - | 0.12158E-02 | 0.17271E-01 |
| 28 | 0.11002E+01 | 0.15989E+00 | 0.10208E+01 | 0.66860E-02 | - | - | 0.17589E-02 | 0.20256E-01 |
| 29 | 0.11002E+01 | 0.11993E+00 | 0.10206E+01 | 0.69750E-02 | - | - | -0.10601E-01 | 0.17890E-01 |
| 30 | 0.11002E+01 | 0.79844E-01 | 0.10224E+01 | 0.81639E-02 | - | - | -0.30495E-01 | 0.19012E-01 |
| 31 | 0.11002E+01 | 0.39880E-01 | 0.10043E+01 | 0.36705E-01 | - | - | -0.12812E+00 | 0.49492E-01 |
| 32 | 0.11002E+01 | -0.85220E-04 | 0.95543E+00 | 0.54828E-01 | - | - | -0.13452E+00 | 0.65805E-01 |
| 33 | 0.11002E+01 | -0.40171E-01 | 0.10103E+01 | 0.17073E-01 | - | - | -0.54069E-01 | 0.35864E-01 |
| 34 | 0.11002E+01 | -0.80136E-01 | 0.10186E+01 | 0.94454E-02 | - | - | -0.12703E-01 | 0.20665E-01 |
| 35 | 0.11002E+01 | -0.12010E+00 | 0.10227E+01 | 0.80566E-02 | - | - | 0.12083E-01 | 0.18057E-01 |
| 36 | 0.11002E+01 | -0.16007E+00 | 0.10246E+01 | 0.70685E-02 | - | - | 0.25795E-01 | 0.18497E-01 |
| 37 | 0.11002E+01 | -0.20015E+00 | 0.10268E+01 | 0.89082E-02 | - | - | 0.29709E-01 | 0.20243E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10275E+01 | 0.71546E-02 | - | - | 0.29374E-01 | 0.17699E-01 |
| 39 | 0.10142E+01 | -0.20015E+00 | 0.10346E+01 | 0.65991E-02 | - | - | 0.29532E-01 | 0.41393E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10435E+01 | 0.78312E-02 | - | - | 0.35080E-02 | 0.50571E-01 |
| 41 | 0.84256E+00 | -0.20015E+00 | 0.10549E+01 | 0.68549E-02 | - | - | -0.53702E-01 | 0.52978E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10643E+01 | 0.71773E-02 | - | - | -0.11087E+00 | 0.60025E-01 |
| 43 | 0.67128E+00 | -0.20015E+00 | 0.10626E+01 | 0.86808E-02 | - | - | -0.13162E+00 | 0.53083E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10529E+01 | 0.62173E-02 | - | - | -0.15311E+00 | 0.51698E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.10453E+01 | 0.87212E-02 | - | - | -0.20940E+00 | 0.55153E-01 |
| 46 | 0.41388E+00 | -0.20015E+00 | 0.10394E+01 | 0.73213E-02 | - | - | -0.24308E+00 | 0.55176E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.10353E+01 | 0.59706E-02 | - | - | -0.26421E+00 | 0.48314E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.10291E+01 | 0.58765E-02 | - | - | -0.27517E+00 | 0.48606E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.10269E+01 | 0.70843E-02 | - | - | -0.27533E+00 | 0.43853E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.10255E+01 | 0.67679E-02 | - | - | -0.29030E+00 | 0.49606E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.10212E+01 | 0.63959E-02 | - | - | -0.26518E+00 | 0.38305E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.10201E+01 | 0.62400E-02 | - | - | -0.25348E+00 | 0.42461E-01 |

I1 = 0.0071 I2 = 2.4505 I3 = 0.0248 I4 = -2.4960

Lift = -0.0135

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 10 at y/c = -1.403

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.10205E+01 | 0.57112E-02 | - | - | 0.30293E-02 | 0.10767E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.10192E+01 | 0.72027E-02 | - | - | -0.68625E-02 | 0.11722E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.10176E+01 | 0.72390E-02 | - | - | 0.47289E-02 | 0.13547E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.10170E+01 | 0.68226E-02 | - | - | 0.71517E-02 | 0.11956E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10152E+01 | 0.66691E-02 | - | - | 0.40209E-02 | 0.98396E-02 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10149E+01 | 0.58777E-02 | - | - | 0.68162E-02 | 0.15934E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10154E+01 | 0.57159E-02 | - | - | 0.10551E-01 | 0.11355E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10156E+01 | 0.63323E-02 | - | - | 0.14290E-01 | 0.10841E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10136E+01 | 0.70718E-02 | - | - | 0.78939E-02 | 0.12090E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10112E+01 | 0.87578E-02 | - | - | 0.29674E-02 | 0.17290E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10149E+01 | 0.62127E-02 | - | - | 0.18430E-01 | 0.12963E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.10116E+01 | 0.73252E-02 | - | - | 0.16557E-01 | 0.12182E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.10108E+01 | 0.60920E-02 | - | - | 0.83725E-02 | 0.14587E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.10112E+01 | 0.58750E-02 | - | - | 0.23672E-01 | 0.10321E-01 |
| 15 | 0.50013E+00 | 0.20010E+00 | 0.10114E+01 | 0.65521E-02 | - | - | 0.19512E-01 | 0.12794E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.10162E+01 | 0.68268E-02 | - | - | 0.36068E-01 | 0.11857E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10208E+01 | 0.61411E-02 | - | - | 0.32843E-01 | 0.10480E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10303E+01 | 0.59171E-02 | - | - | 0.31588E-01 | 0.10853E-01 |
| 19 | 0.84316E+00 | 0.20010E+00 | 0.10302E+01 | 0.64293E-02 | - | - | 0.22136E-01 | 0.10118E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10248E+01 | 0.51176E-02 | - | - | 0.22024E-01 | 0.10063E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10208E+01 | 0.52015E-02 | - | - | 0.24809E-01 | 0.95241E-02 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10194E+01 | 0.65791E-02 | - | - | 0.28907E-01 | 0.11892E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10181E+01 | 0.58049E-02 | - | - | 0.28636E-01 | 0.97391E-02 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10124E+01 | 0.63782E-02 | - | - | 0.33583E-01 | 0.11880E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.10063E+01 | 0.18678E-01 | - | - | 0.56768E-01 | 0.26852E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.91187E+00 | 0.71277E-01 | - | - | 0.10691E+00 | 0.68077E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.10014E+01 | 0.22620E-01 | - | - | 0.84337E-01 | 0.26427E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.10185E+01 | 0.69461E-02 | - | - | 0.63770E-01 | 0.10224E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10228E+01 | 0.47450E-02 | - | - | 0.55707E-01 | 0.99129E-02 |
| 30 | 0.10997E+01 | -0.20015E+00 | 0.10257E+01 | 0.63010E-02 | - | - | 0.43446E-01 | 0.10731E-01 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.10316E+01 | 0.60924E-02 | - | - | 0.55661E-01 | 0.11861E-01 |
| 32 | 0.92820E+00 | -0.20015E+00 | 0.10428E+01 | 0.79251E-02 | - | - | 0.41018E-01 | 0.34570E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10635E+01 | 0.59998E-02 | - | - | 0.10821E-01 | 0.46884E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10741E+01 | 0.72130E-02 | - | - | -0.15070E-01 | 0.46831E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10832E+01 | 0.75621E-02 | - | - | -0.35022E-01 | 0.40779E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10736E+01 | 0.63779E-02 | - | - | -0.48761E-01 | 0.35846E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10598E+01 | 0.75265E-02 | - | - | -0.78826E-01 | 0.49599E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10458E+01 | 0.66089E-02 | - | - | -0.11593E+00 | 0.40992E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.10373E+01 | 0.63539E-02 | - | - | -0.12809E+00 | 0.50464E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.10339E+01 | 0.54768E-02 | - | - | -0.88836E-01 | 0.60144E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10291E+01 | 0.59344E-02 | - | - | -0.19760E-01 | 0.18561E-01 |
| 42 | 0.71326E-01 | -0.20015E+00 | 0.10243E+01 | 0.55761E-02 | - | - | -0.24892E-01 | 0.43574E-01 |
| 43 | -0.14677E-01 | -0.20015E+00 | 0.10214E+01 | 0.75560E-02 | - | - | -0.49673E-05 | 0.19439E-01 |
| 44 | -0.10032E+00 | -0.20015E+00 | 0.10206E+01 | 0.54995E-02 | - | - | 0.59478E-02 | 0.11451E-01 |

I1 = 0.0026 I2 = 2.4420 I3 = -0.0526 I4 = -2.5108

Lift = -0.1188

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 9 at y/c = -1.001

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.99587E-01 | -0.20003E+00 | 0.10155E+01 | 0.63722E-02 | - | - | -0.10110E-01 | 0.13724E-01 |
| 2 | -0.99587E-01 | -0.13322E+00 | 0.10083E+01 | 0.60982E-02 | - | - | -0.48820E-02 | 0.13336E-01 |
| 3 | -0.99587E-01 | -0.66531E-01 | 0.10005E+01 | 0.51938E-02 | - | - | -0.82136E-02 | 0.18457E-01 |
| 4 | -0.99587E-01 | 0.15778E-03 | 0.99469E+00 | 0.55154E-02 | - | - | 0.75081E-02 | 0.11101E-01 |
| 5 | -0.99587E-01 | 0.66846E-01 | 0.99325E+00 | 0.50098E-02 | - | - | 0.63965E-02 | 0.11949E-01 |
| 6 | -0.99587E-01 | 0.13341E+00 | 0.99804E+00 | 0.53334E-02 | - | - | 0.25961E-01 | 0.13922E-01 |
| 7 | -0.99587E-01 | 0.20010E+00 | 0.10006E+01 | 0.55116E-02 | - | - | 0.31663E-01 | 0.14517E-01 |
| 8 | -0.10007E+00 | 0.20010E+00 | 0.10000E+01 | 0.51697E-02 | - | - | 0.27771E-01 | 0.12233E-01 |
| 9 | -0.14191E-01 | 0.20010E+00 | 0.99732E+00 | 0.67710E-02 | - | - | 0.38019E-01 | 0.11846E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.99605E+00 | 0.61777E-02 | - | - | 0.47141E-01 | 0.12397E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10044E+01 | 0.73097E-02 | - | - | 0.65470E-01 | 0.11632E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.99774E+00 | 0.63155E-02 | - | - | 0.55858E-01 | 0.11523E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.10188E+01 | 0.59825E-02 | - | - | 0.80128E-01 | 0.90888E-02 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.10261E+01 | 0.85626E-02 | - | - | 0.75876E-01 | 0.13508E-01 |
| 15 | 0.50037E+00 | 0.20010E+00 | 0.10315E+01 | 0.51584E-02 | - | - | 0.64734E-01 | 0.10724E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10367E+01 | 0.59077E-02 | - | - | 0.58400E-01 | 0.80729E-02 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10385E+01 | 0.66793E-02 | - | - | 0.49801E-01 | 0.87101E-02 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10309E+01 | 0.60125E-02 | - | - | 0.41471E-01 | 0.86553E-02 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10224E+01 | 0.58645E-02 | - | - | 0.36281E-01 | 0.76893E-02 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10116E+01 | 0.53891E-02 | - | - | 0.39293E-01 | 0.75365E-02 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10045E+01 | 0.54725E-02 | - | - | 0.51946E-01 | 0.84541E-02 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10029E+01 | 0.56423E-02 | - | - | 0.60010E-01 | 0.66830E-02 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10023E+01 | 0.57676E-02 | - | - | 0.60481E-01 | 0.73310E-02 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.99455E+00 | 0.56181E-02 | - | - | 0.67266E-01 | 0.72923E-02 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.97757E+00 | 0.22748E-01 | - | - | 0.75973E-01 | 0.27838E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.98465E+00 | 0.76694E-02 | - | - | 0.10934E+00 | 0.94306E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99826E+00 | 0.62507E-02 | - | - | 0.11169E+00 | 0.69728E-02 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.10070E+01 | 0.57308E-02 | - | - | 0.10606E+00 | 0.87662E-02 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10163E+01 | 0.63968E-02 | - | - | 0.10078E+00 | 0.91933E-02 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.10134E+01 | 0.60377E-02 | - | - | 0.98493E-01 | 0.11204E-01 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.10164E+01 | 0.57220E-02 | - | - | 0.10587E+00 | 0.63627E-02 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.10273E+01 | 0.52571E-02 | - | - | 0.78097E-01 | 0.45931E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.10385E+01 | 0.63884E-02 | - | - | 0.33446E-01 | 0.51778E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10622E+01 | 0.59014E-02 | - | - | -0.11323E-01 | 0.53040E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10832E+01 | 0.66641E-02 | - | - | -0.48223E-01 | 0.40060E-01 |
| 36 | 0.58564E+00 | -0.20015E+00 | 0.10998E+01 | 0.64751E-02 | - | - | -0.65022E-01 | 0.44993E-01 |
| 37 | 0.49964E+00 | -0.20015E+00 | 0.11184E+01 | 0.86119E-02 | - | - | -0.95744E-01 | 0.46344E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41400E+00 | -0.20015E+00 | 0.11267E+01 | 0.89870E-02 | - | - | -0.78108E-01 | 0.65067E-01 |
| 39 | 0.32836E+00 | -0.20015E+00 | 0.11157E+01 | 0.14462E-01 | - | - | -0.10422E+00 | 0.49178E-01 |
| 40 | 0.24272E+00 | -0.20015E+00 | 0.10971E+01 | 0.95220E-02 | - | - | -0.13158E+00 | 0.44149E-01 |
| 41 | 0.15696E+00 | -0.20015E+00 | 0.10649E+01 | 0.74030E-02 | - | - | -0.15265E+00 | 0.49267E-01 |
| 42 | 0.71083E-01 | -0.20015E+00 | 0.10357E+01 | 0.69125E-02 | - | - | -0.13190E+00 | 0.58701E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.10215E+01 | 0.54972E-02 | - | - | -0.61001E-01 | 0.31494E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.10158E+01 | 0.50670E-02 | - | - | -0.18104E-01 | 0.20245E-01 |

I1 = 0.0059 I2 = 2.4384 I3 = -0.0741 I4 = -2.5578

Lift = -0.1876

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 8 at y/c = -0.498

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.10049E+01 | 0.79361E-02 | - | - | -0.62621E-01 | 0.17752E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.95925E+00 | 0.73552E-02 | - | - | -0.71512E-01 | 0.20623E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.90360E+00 | 0.11575E-01 | - | - | -0.40317E-01 | 0.19937E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.89817E+00 | 0.11236E-01 | - | - | 0.22591E-01 | 0.20061E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.92780E+00 | 0.78280E-02 | - | - | 0.55935E-01 | 0.16413E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.95679E+00 | 0.83016E-02 | - | - | 0.60024E-01 | 0.15319E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.98201E+00 | 0.76016E-02 | - | - | 0.69633E-01 | 0.13355E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.98012E+00 | 0.87397E-02 | - | - | 0.61636E-01 | 0.15573E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.98459E+00 | 0.80194E-02 | - | - | 0.87203E-01 | 0.14090E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10143E+01 | 0.75212E-02 | - | - | 0.11565E+00 | 0.14221E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10391E+01 | 0.89659E-02 | - | - | 0.11606E+00 | 0.10470E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.10603E+01 | 0.10580E-01 | - | - | 0.99524E-01 | 0.10779E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.10676E+01 | 0.59446E-02 | - | - | 0.79963E-01 | 0.75310E-02 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.10716E+01 | 0.70088E-02 | - | - | 0.64890E-01 | 0.97213E-02 |
| 15 | 0.50037E+00 | 0.20010E+00 | 0.10665E+01 | 0.86454E-02 | - | - | 0.51918E-01 | 0.84181E-02 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10572E+01 | 0.68437E-02 | - | - | 0.43513E-01 | 0.92583E-02 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10450E+01 | 0.72781E-02 | - | - | 0.32356E-01 | 0.81092E-02 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10344E+01 | 0.66508E-02 | - | - | 0.29693E-01 | 0.83804E-02 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10194E+01 | 0.72305E-02 | - | - | 0.31114E-01 | 0.79180E-02 |
| 20 | 0.92880E+00 | 0.20010E+00 | 0.10093E+01 | 0.67589E-02 | - | - | 0.40210E-01 | 0.83819E-02 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10029E+01 | 0.68417E-02 | - | - | 0.57043E-01 | 0.80838E-02 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10002E+01 | 0.67932E-02 | - | - | 0.69065E-01 | 0.80953E-02 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10006E+01 | 0.64242E-02 | - | - | 0.68897E-01 | 0.95523E-02 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.99387E+00 | 0.93520E-02 | - | - | 0.80133E-01 | 0.78990E-02 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.81428E+00 | 0.61329E-01 | - | - | 0.69869E-01 | 0.47236E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.92879E+00 | 0.43755E-01 | - | - | 0.12681E+00 | 0.78135E-02 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99450E+00 | 0.58665E-02 | - | - | 0.12715E+00 | 0.89246E-02 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.10043E+01 | 0.54207E-02 | - | - | 0.12145E+00 | 0.75316E-02 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10110E+01 | 0.58702E-02 | - | - | 0.11114E+00 | 0.82086E-02 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.10121E+01 | 0.60355E-02 | - | - | 0.11380E+00 | 0.78263E-02 |
| 31 | 0.10140E+01 | -0.20015E+00 | 0.10123E+01 | 0.57359E-02 | - | - | 0.12054E+00 | 0.81237E-02 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.10180E+01 | 0.58659E-02 | - | - | 0.12637E+00 | 0.10866E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.10286E+01 | 0.63235E-02 | - | - | 0.84035E-01 | 0.48020E-01 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10438E+01 | 0.68961E-02 | - | - | 0.98637E-01 | 0.43643E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10598E+01 | 0.59165E-02 | - | - | 0.13554E+00 | 0.18226E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10739E+01 | 0.72054E-02 | - | - | 0.13637E+00 | 0.17063E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10953E+01 | 0.75746E-02 | - | - | 0.13042E+00 | 0.41350E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.11098E+01 | 0.78297E-02 | - | - | 0.11350E+00 | 0.38515E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.11240E+01 | 0.91390E-02 | - | - | 0.99637E-01 | 0.32467E-01 |
| 40 | 0.24260E+00 | -0.20015E+00 | 0.11394E+01 | 0.73637E-02 | - | - | 0.75945E-01 | 0.42230E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.11481E+01 | 0.11926E-01 | - | - | 0.15527E-01 | 0.15140E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.11366E+01 | 0.13112E-01 | - | - | -0.60283E-01 | 0.16497E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.10586E+01 | 0.13077E-01 | - | - | -0.95434E-01 | 0.18380E-01 |
| 44 | -0.10007E+00 | -0.20015E+00 | 0.10072E+01 | 0.10132E-01 | - | - | -0.62453E-01 | 0.18054E-01 |

I1 = 0.0037 I2 = 2.4786 I3 = -0.0839 I4 = -2.5811

$Lir_t$ = -0.1027

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 7 at y/c = -0.097

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.98850E+00 | 0.12851E-01 | - | - | -0.46003E-01 | 0.20530E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.95332E+00 | 0.13946E-01 | - | - | -0.46421E-01 | 0.26378E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.91232E+00 | 0.14899E-01 | - | - | -0.14214E-01 | 0.18693E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.91658E+00 | 0.12794E-01 | - | - | 0.44058E-01 | 0.19492E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.95290E+00 | 0.12240E-01 | - | - | 0.73987E-01 | 0.20905E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.98428E+00 | 0.11464E-01 | - | - | 0.79403E-01 | 0.21842E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10073E+01 | 0.10644E-01 | - | - | 0.78234E-01 | 0.20653E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10067E+01 | 0.10835E-01 | - | - | 0.75581E-01 | 0.17533E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10212E+01 | 0.13031E-01 | - | - | 0.95515E-01 | 0.24635E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.10496E+01 | 0.10042E-01 | - | - | 0.99619E-01 | 0.22752E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.10882E+01 | 0.13518E-01 | - | - | 0.10207E+00 | 0.21685E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.11093E+01 | 0.13585E-01 | - | - | 0.84557E-01 | 0.14689E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.11117E+01 | 0.92016E-02 | - | - | 0.53793E-01 | 0.17824E-01 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.11075E+01 | 0.11714E-01 | - | - | 0.35863E-01 | 0.23258E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.10960E+01 | 0.10426E-01 | - | - | 0.11958E-01 | 0.17585E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10810E+01 | 0.80487E-02 | - | - | -0.11232E-02 | 0.14316E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10650E+01 | 0.84439E-02 | - | - | -0.66162E-02 | 0.13434E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10499E+01 | 0.98951E-02 | - | - | -0.14613E-01 | 0.15803E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10323E+01 | 0.10281E-01 | - | - | -0.15465E-01 | 0.20656E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10231E+01 | 0.12343E-01 | - | - | -0.10331E-02 | 0.14576E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10166E+01 | 0.15538E-01 | - | - | 0.11614E-01 | 0.18604E-01 |
| 22 | 0.11002E+01 | 0.20010E+00 | 0.10142E+01 | 0.14120E-01 | - | - | 0.24618E-01 | 0.23508E-01 |
| 23 | 0.11002E+01 | 0.19998E+00 | 0.10125E+01 | 0.13803E-01 | - | - | 0.25104E-01 | 0.20525E-01 |
| 24 | 0.11002E+01 | 0.13317E+00 | 0.10034E+01 | 0.13832E-01 | - | - | 0.48179E-01 | 0.11718E-01 |
| 25 | 0.11002E+01 | 0.66603E-01 | 0.87217E+00 | 0.57985E-01 | - | - | 0.64512E-01 | 0.49041E-01 |
| 26 | 0.11002E+01 | -0.85220E-04 | 0.99396E+00 | 0.16830E-01 | - | - | 0.22879E+00 | 0.33735E-01 |
| 27 | 0.11002E+01 | -0.66774E-01 | 0.99961E+00 | 0.14436E-01 | - | - | 0.27520E+00 | 0.21958E-01 |
| 28 | 0.11002E+01 | -0.13346E+00 | 0.10062E+01 | 0.12180E-01 | - | - | 0.18123E+00 | 0.17061E-01 |
| 29 | 0.11002E+01 | -0.20015E+00 | 0.10129E+01 | 0.11982E-01 | - | - | 0.11829E+00 | 0.19001E-01 |
| 30 | 0.10994E+01 | -0.20015E+00 | 0.10134E+01 | 0.12783E-01 | - | - | 0.11507E+00 | 0.14185E-01 |
| 31 | 0.10142E+01 | -0.20015E+00 | 0.10135E+01 | 0.14152E-01 | - | - | 0.11907E+00 | 0.14755E-01 |
| 32 | 0.92820E+00 | -0.20015E+00 | 0.10169E+01 | 0.13771E-01 | - | - | 0.12430E+00 | 0.29538E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10275E+01 | 0.12544E-01 | - | - | 0.13797E+00 | 0.17434E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10440E+01 | 0.98498E-02 | - | - | 0.14073E+00 | 0.31471E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10558E+01 | 0.12658E-01 | - | - | 0.13274E+00 | 0.49034E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10764E+01 | 0.10857E-01 | - | - | 0.12980E+00 | 0.44435E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10899E+01 | 0.13111E-01 | - | - | 0.12293E+00 | 0.44516E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10999E+01 | 0.10555E-01 | - | - | 0.10951E+00 | 0.45528E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.11144E+01 | 0.11882E-01 | - | - | 0.95671E-01 | 0.46682E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.11140E+01 | 0.10838E-01 | - | - | 0.84400E-01 | 0.47486E-01 |
| 41 | 0.15672E+00 | -0.20015E+00 | 0.11077E+01 | 0.14769E-01 | - | - | 0.45321E-01 | 0.52705E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.10885E+01 | 0.16693E-01 | - | - | 0.25493E-01 | 0.46133E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.10307E+01 | 0.20662E-01 | - | - | 0.58991E-02 | 0.48288E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.99473E+00 | 0.16820E-01 | - | - | -0.18942E-01 | 0.44775E-01 |

I1 = 0.0204 I2 = 2.5477 I3 = -0.1180 I4 = -2.5512

Lift = -0.1011

Rectangular Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 6 at y/c -0.047

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.98827E+00 | 0.10539E-01 | - | - | -0.38642E-01 | 0.26238E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.96997E+00 | 0.11420E-01 | - | - | -0.41211E-01 | 0.25543E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94567E+00 | 0.11926E-01 | - | - | -0.33539E-01 | 0.29072E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92206E+00 | 0.12958E-01 | - | - | -0.21873E-01 | 0.24405E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91286E+00 | 0.11315E-01 | - | - | 0.14974E-01 | 0.25428E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.92311E+00 | 0.13583E-01 | - | - | 0.48703E-01 | 0.27954E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.94202E+00 | 0.13034E-01 | - | - | 0.80126E-01 | 0.32794E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.96444E+00 | 0.11440E-01 | - | - | 0.93769E-01 | 0.29269E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.98422E+00 | 0.94748E-02 | - | - | 0.93508E-01 | 0.29432E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.99675E+00 | 0.10216E-01 | - | - | 0.80878E-01 | 0.26162E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10102E+01 | 0.98791E-02 | - | - | 0.82516E-01 | 0.25120E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10089E+01 | 0.76285E-02 | - | - | 0.75561E-01 | 0.24344E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10255E+01 | 0.10367E-01 | - | - | 0.98309E-01 | 0.26066E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10610E+01 | 0.12638E-01 | - | - | 0.10086E+00 | 0.27971E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.10914E+01 | 0.11658E-01 | - | - | 0.10885E+00 | 0.37532E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.11175E+01 | 0.88946E-02 | - | - | 0.76003E-01 | 0.24823E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.11171E+01 | 0.10002E-01 | - | - | 0.52604E-01 | 0.37353E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.11115E+01 | 0.71608E-02 | - | - | 0.41025E-01 | 0.52192E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.10977E+01 | 0.10571E-01 | - | - | 0.93929E-02 | 0.30777E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10843E+01 | 0.72452E-02 | - | - | -0.81388E-02 | 0.34701E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10655E+01 | 0.74825E-02 | - | - | -0.24826E-01 | 0.17802E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10532E+01 | 0.92723E-02 | - | - | -0.25393E-01 | 0.17319E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10348E+01 | 0.10314E-01 | - | - | -0.17734E-01 | 0.32589E-01 |
| 24 | 0.92892E+00 | 0.20010E+00 | 0.10221E+01 | 0.80762E-02 | - | - | -0.99507E-02 | 0.22492E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10152E+01 | 0.85297E-02 | - | - | -0.36030E-02 | 0.21093E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10125E+01 | 0.77943E-02 | - | - | 0.96170E-02 | 0.30035E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10132E+01 | 0.83733E-02 | - | - | 0.21910E-01 | 0.37127E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10076E+01 | 0.88040E-02 | - | - | 0.20823E-01 | 0.21362E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10037E+01 | 0.91490E-02 | - | - | 0.38499E-01 | 0.25785E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.99613E+00 | 0.97170E-02 | - | - | 0.67734E-01 | 0.21067E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10048E+01 | 0.10599E-01 | - | - | 0.15390E+00 | 0.27728E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10001E+01 | 0.13401E-01 | - | - | 0.30308E+00 | 0.34469E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.98288E+00 | 0.33858E-01 | - | - | 0.37065E+00 | 0.54542E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.98167E+00 | 0.32891E-01 | - | - | 0.31754E+00 | 0.66055E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.10028E+01 | 0.14917E-01 | - | - | 0.18035E+00 | 0.30196E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10091E+01 | 0.14841E-01 | - | - | 0.12331E+00 | 0.21511E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10135E+01 | 0.14205E-01 | - | - | 0.10570E+00 | 0.28870E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10115E+01 | 0.14125E-01 | - | - | 0.98028E-01 | 0.26987E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.10081E+01 | 0.11428E-01 | - | - | 0.10062E+00 | 0.31412E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10125E+01 | 0.85478E-02 | - | - | 0.10522E+00 | 0.56049E-01 |
| 41 | 0.84244E+00 | -0.20015E+00 | 0.10238E+01 | 0.71588E-02 | - | - | 0.10415E+00 | 0.58809E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10415E+01 | 0.93796E-02 | - | - | 0.10826E+00 | 0.57392E-01 |
| 43 | 0.67128E+00 | -0.20015E+00 | 0.10599E+01 | 0.80727E-02 | - | - | 0.11730E+00 | 0.44627E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10746E+01 | 0.84973E-02 | - | - | 0.10547E+00 | 0.55550E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.10881E+01 | 0.10012E-01 | - | - | 0.99586E-01 | 0.41428E-01 |
| 46 | 0.41388E+00 | -0.20015E+00 | 0.10961E+01 | 0.10351E-01 | - | - | 0.89861E-01 | 0.49866E-01 |
| 47 | 0.32836E+00 | -0.20015E+00 | 0.11084E+01 | 0.79714E-02 | - | - | 0.65768E-01 | 0.61972E-01 |
| 48 | 0.24260E+00 | -0.20015E+00 | 0.11047E+01 | 0.10070E-01 | - | - | 0.60257E-01 | 0.50244E-01 |
| 49 | 0.15684E+00 | -0.20015E+00 | 0.10940E+01 | 0.11920E-01 | - | - | 0.66393E-01 | 0.58920E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.10712E+01 | 0.10728E-01 | - | - | 0.65257E-01 | 0.60271E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.10139E+01 | 0.13841E-01 | - | - | 0.65769E-01 | 0.62518E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.98931E+00 | 0.11193E-01 | - | - | 0.61115E-01 | 0.51396E-01 |

I1 = 0.0265 I2 = 2.5548 I3 = -0.1319 I4 = -2.5364

Lift = -0.0869

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 5 at y/c = 0.003

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.98419E+00 | 0.10313E-01 | - | - | -0.36675E-01 | 0.26247E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.96680E+00 | 0.11043E-01 | - | - | -0.34111E-01 | 0.24603E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94441E+00 | 0.99849E-02 | - | - | -0.21754E-01 | 0.26314E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92583E+00 | 0.10467E-01 | - | - | -0.11425E-01 | 0.24819E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91613E+00 | 0.10841E-01 | - | - | 0.19562E-01 | 0.23295E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.92352E+00 | 0.92441E-02 | - | - | 0.61542E-01 | 0.25547E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.94557E+00 | 0.10717E-01 | - | - | 0.85726E-01 | 0.27860E-01 |
| 8 | -0.10032E+00 | 0.80037E-01 | 0.96563E+00 | 0.97690E-02 | - | - | 0.78066E-01 | 0.22599E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.98994E+00 | 0.10188E-01 | - | - | 0.89543E-01 | 0.24112E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10040E+01 | 0.96754E-02 | - | - | 0.83619E-01 | 0.22439E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10165E+01 | 0.85161E-02 | - | - | 0.77463E-01 | 0.21192E-01 |
| 12 | -0.99830E-01 | 0.20010E+00 | 0.10164E+01 | 0.94180E-02 | - | - | 0.75231E-01 | 0.26202E-01 |
| 13 | -0.14191E-01 | 0.20010E+00 | 0.10421E+01 | 0.91328E-02 | - | - | 0.90519E-01 | 0.22892E-01 |
| 14 | 0.71569E-01 | 0.20010E+00 | 0.10757E+01 | 0.10838E-01 | - | - | 0.99577E-01 | 0.24505E-01 |
| 15 | 0.15721E+00 | 0.20010E+00 | 0.11086E+01 | 0.13013E-01 | - | - | 0.91271E-01 | 0.25486E-01 |
| 16 | 0.24297E+00 | 0.20010E+00 | 0.11250E+01 | 0.88466E-02 | - | - | 0.55641E-01 | 0.21678E-01 |
| 17 | 0.32873E+00 | 0.20010E+00 | 0.11302E+01 | 0.92186E-02 | - | - | 0.33010E-01 | 0.34963E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.11151E+01 | 0.77297E-02 | - | - | 0.33674E-03 | 0.25815E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.11021E+01 | 0.79749E-02 | - | - | -0.21110E-01 | 0.22935E-01 |
| 20 | 0.58601E+00 | 0.20010E+00 | 0.10871E+01 | 0.63436E-02 | - | - | -0.37617E-01 | 0.21505E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10705E+01 | 0.80345E-02 | - | - | -0.47164E-01 | 0.20128E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10554E+01 | 0.79638E-02 | - | - | -0.49335E-01 | 0.22298E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10375E+01 | 0.76010E-02 | - | - | -0.47617E-01 | 0.22872E-01 |
| 24 | 0.92880E+00 | 0.20010E+00 | 0.10244E+01 | 0.68859E-02 | - | - | -0.29998E-01 | 0.17299E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10182E+01 | 0.10875E-01 | - | - | -0.26114E-01 | 0.19605E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10159E+01 | 0.10152E-01 | - | - | -0.78858E-02 | 0.24080E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10168E+01 | 0.84804E-02 | - | - | -0.90465E-02 | 0.27792E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10125E+01 | 0.89451E-02 | - | - | -0.14586E-01 | 0.17766E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10070E+01 | 0.95258E-02 | - | - | -0.43732E-02 | 0.23169E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10021E+01 | 0.10355E-01 | - | - | 0.14040E-01 | 0.22346E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.10200E+01 | 0.13603E-01 | - | - | 0.70984E-01 | 0.28538E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.91073E+00 | 0.52734E-01 | - | - | 0.33244E-01 | 0.73649E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.93333E+00 | 0.51870E-01 | - | - | 0.66358E-01 | 0.61547E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.10119E+01 | 0.34192E-01 | - | - | 0.23936E-01 | 0.51620E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.98732E+00 | 0.40471E-01 | - | - | 0.42695E-01 | 0.42300E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.10093E+01 | 0.16471E-01 | - | - | 0.57349E-01 | 0.19526E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10114E+01 | 0.13345E-01 | - | - | 0.56709E-01 | 0.23751E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10084E+01 | 0.82932E-02 | - | - | 0.66155E-01 | 0.36176E-01 |
| 39 | 0.10141E+01 | -0.20015E+00 | 0.10049E+01 | 0.73492E-02 | - | - | 0.69380E-01 | 0.52275E-01 |
| 40 | 0.92844E+00 | -0.20015E+00 | 0.10062E+01 | 0.84177E-02 | - | - | 0.75637E-01 | 0.50501E-01 |
| 41 | 0.84268E+00 | -0.20015E+00 | 0.10217E+01 | 0.73737E-02 | - | - | 0.87721E-01 | 0.45926E-01 |
| 42 | 0.75692E+00 | -0.20015E+00 | 0.10389E+01 | 0.11833E-01 | - | - | 0.10231E+00 | 0.45457E-01 |
| 43 | 0.67116E+00 | -0.20015E+00 | 0.10586E+01 | 0.77029E-02 | - | - | 0.99039E-01 | 0.44604E-01 |
| 44 | 0.58564E+00 | -0.20015E+00 | 0.10706E+01 | 0.76158E-02 | - | - | 0.11156E+00 | 0.51051E-01 |
| 45 | 0.49988E+00 | -0.20015E+00 | 0.10813E+01 | 0.76219E-02 | - | - | 0.10380E+00 | 0.48270E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10956E+01 | 0.81573E-02 | - | - | 0.86459E-01 | 0.56653E-01 |
| 47 | 0.32824E+00 | -0.20015E+00 | 0.10956E+01 | 0.89453E-02 | - | - | 0.85884E-01 | 0.53150E-01 |
| 48 | 0.24248E+00 | -0.20015E+00 | 0.10934E+01 | 0.10908E-01 | - | - | 0.89545E-01 | 0.49561E-01 |
| 49 | 0.15672E+00 | -0.20015E+00 | 0.10797E+01 | 0.85756E-02 | - | - | 0.73357E-01 | 0.75537E-01 |
| 50 | 0.71204E-01 | -0.20015E+00 | 0.10485E+01 | 0.14027E-01 | - | - | 0.70520E-01 | 0.64931E-01 |
| 51 | -0.14556E-01 | -0.20015E+00 | 0.10009E+01 | 0.13878E-01 | - | - | 0.71686E-01 | 0.54651E-01 |
| 52 | -0.10019E+00 | -0.20015E+00 | 0.98443E+00 | 0.10705E-01 | - | - | 0.70333E-01 | 0.64634E-01 |

I1 = 0.0293 I2 = 2.5734 I3 = -0.0228 I4 = -2.5183

Lift = 0.0616

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 4 at y/c = 0.054

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.98146E+00 | 0.96954E-02 | - | - | -0.33913E-01 | 0.18571E-01 |
| 2 | -0.10032E+00 | -0.15982E+00 | 0.96584E+00 | 0.10078E-01 | - | - | -0.36976E-01 | 0.18990E-01 |
| 3 | -0.10032E+00 | -0.11986E+00 | 0.94748E+00 | 0.10789E-01 | - | - | -0.28051E-01 | 0.21790E-01 |
| 4 | -0.10032E+00 | -0.79893E-01 | 0.92862E+00 | 0.14241E-01 | - | - | -0.46307E-02 | 0.19260E-01 |
| 5 | -0.10032E+00 | -0.39928E-01 | 0.91661E+00 | 0.10904E-01 | - | - | 0.26161E-01 | 0.23183E-01 |
| 6 | -0.10032E+00 | 0.15778E-03 | 0.92212E+00 | 0.10955E-01 | - | - | 0.48029E-01 | 0.27475E-01 |
| 7 | -0.10032E+00 | 0.40123E-01 | 0.94474E+00 | 0.10727E-01 | - | - | 0.79025E-01 | 0.22514E-01 |
| 8 | -0.10032E+00 | 0.80087E-01 | 0.97359E+00 | 0.97675E-02 | - | - | 0.98927E-01 | 0.23486E-01 |
| 9 | -0.10032E+00 | 0.12017E+00 | 0.99214E+00 | 0.77794E-02 | - | - | 0.91979E-01 | 0.19217E-01 |
| 10 | -0.10032E+00 | 0.16014E+00 | 0.10090E+01 | 0.96069E-02 | - | - | 0.81168E-01 | 0.17274E-01 |
| 11 | -0.10032E+00 | 0.20010E+00 | 0.10237E+01 | 0.74717E-02 | - | - | 0.86501E-01 | 0.19810E-01 |
| 12 | -0.99708E-01 | 0.20010E+00 | 0.10174E+01 | 0.89659E-02 | - | - | 0.79678E-01 | 0.22962E-01 |
| 13 | -0.14070E-01 | 0.20010E+00 | 0.10468E+01 | 0.14483E-01 | - | - | 0.94919E-01 | 0.17984E-01 |
| 14 | 0.71690E-01 | 0.20010E+00 | 0.10835E+01 | 0.10348E-01 | - | - | 0.10021E+00 | 0.20358E-01 |
| 15 | 0.15733E+00 | 0.20010E+00 | 0.11172E+01 | 0.95213E-02 | - | - | 0.73775E-01 | 0.22947E-01 |
| 16 | 0.24309E+00 | 0.20010E+00 | 0.11371E+01 | 0.92383E-02 | - | - | 0.42140E-01 | 0.19298E-01 |
| 17 | 0.32885E+00 | 0.20010E+00 | 0.11348E+01 | 0.81181E-02 | - | - | 0.61987E-02 | 0.23361E-01 |
| 18 | 0.41437E+00 | 0.20010E+00 | 0.11200E+01 | 0.10444E-01 | - | - | -0.24793E-01 | 0.18886E-01 |
| 19 | 0.50013E+00 | 0.20010E+00 | 0.11057E+01 | 0.70694E-02 | - | - | -0.43552E-01 | 0.20178E-01 |
| 20 | 0.58613E+00 | 0.20010E+00 | 0.10900E+01 | 0.77367E-02 | - | - | -0.56311E-01 | 0.21082E-01 |
| 21 | 0.67165E+00 | 0.20010E+00 | 0.10764E+01 | 0.82924E-02 | - | - | -0.61542E-01 | 0.18454E-01 |
| 22 | 0.75728E+00 | 0.20010E+00 | 0.10554E+01 | 0.83312E-02 | - | - | -0.71997E-01 | 0.17062E-01 |
| 23 | 0.84292E+00 | 0.20010E+00 | 0.10392E+01 | 0.76093E-02 | - | - | -0.66320E-01 | 0.16449E-01 |
| 24 | 0.92880E+00 | 0.20010E+00 | 0.10295E+01 | 0.86141E-02 | - | - | -0.60799E-01 | 0.17894E-01 |
| 25 | 0.10146E+01 | 0.20010E+00 | 0.10229E+01 | 0.71333E-02 | - | - | -0.46795E-01 | 0.20917E-01 |
| 26 | 0.11001E+01 | 0.20010E+00 | 0.10214E+01 | 0.81665E-02 | - | - | -0.39844E-01 | 0.21132E-01 |
| 27 | 0.11001E+01 | 0.19998E+00 | 0.10178E+01 | 0.89092E-02 | - | - | -0.42773E-01 | 0.18533E-01 |
| 28 | 0.11001E+01 | 0.15989E+00 | 0.10145E+01 | 0.82452E-02 | - | - | -0.50164E-01 | 0.17628E-01 |
| 29 | 0.11001E+01 | 0.11993E+00 | 0.10103E+01 | 0.10253E-01 | - | - | -0.62619E-01 | 0.18772E-01 |
| 30 | 0.11001E+01 | 0.79844E-01 | 0.10040E+01 | 0.92580E-02 | - | - | -0.89996E-01 | 0.20675E-01 |
| 31 | 0.11001E+01 | 0.39880E-01 | 0.93456E+00 | 0.68380E-01 | - | - | -0.19038E+00 | 0.55205E-01 |
| 32 | 0.11001E+01 | -0.85220E-04 | 0.10166E+01 | 0.45193E-01 | - | - | -0.19100E+00 | 0.54405E-01 |
| 33 | 0.11001E+01 | -0.40171E-01 | 0.96141E+00 | 0.64192E-01 | - | - | -0.22681E+00 | 0.77904E-01 |
| 34 | 0.11001E+01 | -0.80136E-01 | 0.10213E+01 | 0.26443E-01 | - | - | -0.17689E+00 | 0.33828E-01 |
| 35 | 0.11001E+01 | -0.12010E+00 | 0.84030E+00 | 0.60320E-01 | - | - | -0.47147E-01 | 0.52815E-01 |
| 36 | 0.11001E+01 | -0.16007E+00 | 0.97212E+00 | 0.47906E-01 | - | - | -0.85023E-02 | 0.19667E-01 |
| 37 | 0.11001E+01 | -0.20015E+00 | 0.10085E+01 | 0.38775E-02 | - | - | 0.14469E-01 | 0.18365E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.10996E+01 | -0.20015E+00 | 0.10098E+01 | 0.99593E-02 | - | - | 0.18064E-01 | 0.18067E-01 |
| 39 | 0.10140E+01 | -0.20015E+00 | 0.10061E+01 | 0.87245E-02 | - | - | 0.27002E-01 | 0.41051E-01 |
| 40 | 0.92832E+00 | -0.20015E+00 | 0.10077E+01 | 0.91513E-02 | - | - | 0.32750E-01 | 0.46958E-01 |
| 41 | 0.84268E+00 | -0.20015E+00 | 0.10163E+01 | 0.79507E-02 | - | - | 0.50212E-01 | 0.48739E-01 |
| 42 | 0.75704E+00 | -0.20015E+00 | 0.10390E+01 | 0.88788E-02 | - | - | 0.66470E-01 | 0.40295E-01 |
| 43 | 0.67104E+00 | -0.20015E+00 | 0.10557E+01 | 0.77845E-02 | - | - | 0.73120E-01 | 0.49244E-01 |
| 44 | 0.58552E+00 | -0.20015E+00 | 0.10684E+01 | 0.64106E-02 | - | - | 0.71562E-01 | 0.53398E-01 |
| 45 | 0.49976E+00 | -0.20015E+00 | 0.10799E+01 | 0.93479E-02 | - | - | 0.68299E-01 | 0.53429E-01 |
| 46 | 0.41412E+00 | -0.20015E+00 | 0.10875E+01 | 0.86116E-02 | - | - | 0.38272E-01 | 0.54119E-01 |
| 47 | 0.32848E+00 | -0.20015E+00 | 0.10832E+01 | 0.80405E-02 | - | - | 0.30773E-01 | 0.55087E-01 |
| 48 | 0.24272E+00 | -0.20015E+00 | 0.10849E+01 | 0.10188E-01 | - | - | 0.27086E-01 | 0.52322E-01 |
| 49 | 0.15696E+00 | -0.20015E+00 | 0.10637E+01 | 0.12226E-01 | - | - | 0.23826E-02 | 0.72154E-01 |
| 50 | 0.71326E-01 | -0.20015E+00 | 0.10347E+01 | 0.94496E-02 | - | - | -0.68221E-02 | 0.57897E-01 |
| 51 | -0.14434E-01 | -0.20015E+00 | 0.10003E+01 | 0.12875E-01 | - | - | -0.15243E-01 | 0.59200E-01 |
| 52 | -0.10032E+00 | -0.20015E+00 | 0.98165E+00 | 0.12822E-01 | - | - | -0.62062E-02 | 0.42952E-01 |

I1 = 0.0303 I2 = 2.5852 I3 = 0.0840 I4 = -2.5061

Lift = 0.1934

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 3 at y/c = 0.104

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.97381E+00 | 0.12942E-01 | - | - | -0.27028E-01 | 0.21728E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.95367E+00 | 0.15624E-01 | - | - | -0.22355E-01 | 0.22930E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.93268E+00 | 0.11177E-01 | - | - | 0.64285E-02 | 0.22982E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.92423E-00 | 0.12818E-01 | - | - | 0.54909E-01 | 0.24780E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.96502E+00 | 0.10356E-01 | - | - | 0.92568E-01 | 0.24492E-01 |
| 6 | -0.10019E+00 | 0.13361E+00 | 0.10016E+01 | 0.12474E-01 | - | - | 0.92996E-01 | 0.24969E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10240E+01 | 0.77985E-02 | - | - | 0.79459E-01 | 0.14450E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10245E+01 | 0.76431E-02 | - | - | 0.79169E-01 | 0.16219E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10517E+01 | 0.12102E-01 | - | - | 0.95124E-01 | 0.22660E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.10951E+01 | 0.12048E-01 | - | - | 0.94989E-01 | 0.16327E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.11261E+01 | 0.10439E-01 | - | - | 0.58436E-01 | 0.21521E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.11429E+01 | 0.11580E-01 | - | - | 0.20625E-01 | 0.18970E-01 |
| 13 | 0.32873E+00 | 0.20010E+00 | 0.11365E+01 | 0.13200E-01 | - | - | -0.13179E-01 | 0.30548E-01 |
| 14 | 0.41461E+00 | 0.20010E+00 | 0.11219E+01 | 0.83573E-02 | - | - | -0.44902E-01 | 0.23596E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11082E+01 | 0.10474E-01 | - | - | -0.62812E-01 | 0.19267E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.10914E+01 | 0.78316E-02 | - | - | -0.80032E-01 | 0.17283E-01 |
| 17 | 0.67152E+00 | 0.20010E+00 | 0.10767E+01 | 0.86716E-02 | - | - | -0.86226E-01 | 0.16437E-01 |
| 18 | 0.75740E+00 | 0.20010E+00 | 0.10609E+01 | 0.12897E-01 | - | - | -0.86662E-01 | 0.14054E-01 |
| 19 | 0.84292E+00 | 0.20010E+00 | 0.10442E+01 | 0.83023E-02 | - | - | -0.88411E-01 | 0.21559E-01 |
| 20 | 0.92892E+00 | 0.20010E+00 | 0.10329E+01 | 0.11104E-01 | - | - | -0.83206E-01 | 0.19251E-01 |
| 21 | 0.10144E+01 | 0.20010E+00 | 0.10242E+01 | 0.10227E-01 | - | - | -0.73650E-01 | 0.14377E-01 |
| 22 | 0.11003E+01 | 0.20010E+00 | 0.10215E+01 | 0.10800E-01 | - | - | -0.68633E-01 | 0.14261E-01 |
| 23 | 0.11003E+01 | 0.19998E+00 | 0.10200E+01 | 0.10182E-01 | - | - | -0.64377E-01 | 0.13417E-01 |
| 24 | 0.11003E+01 | 0.13317E+00 | 0.10168E+01 | 0.10503E-01 | - | - | -0.86580E-01 | 0.18834E-01 |
| 25 | 0.11003E+01 | 0.66603E-01 | 0.10091E+01 | 0.88061E-02 | - | - | -0.15292E+00 | 0.16116E-01 |
| 26 | 0.11003E+01 | -0.85220E-04 | 0.98776E+00 | 0.36266E-01 | - | - | -0.25398E+00 | 0.30378E-01 |
| 27 | 0.11003E+01 | -0.66774E-01 | 0.10066E+01 | 0.12083E-01 | - | - | -0.22885E+00 | 0.22552E-01 |
| 28 | 0.11003E+01 | -0.13346E+00 | 0.99114E+00 | 0.20719E-01 | - | - | -0.73693E-01 | 0.28211E-01 |
| 29 | 0.11003E+01 | -0.20015E+00 | 0.10040E+01 | 0.83347E-02 | - | - | -0.22406E-01 | 0.15468E-01 |
| 30 | 0.10995E+01 | -0.20015E+00 | 0.10052E+01 | 0.90133E-02 | - | - | -0.20882E-01 | 0.18212E-01 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.10035E+01 | 0.98963E-02 | - | - | -0.11435E-01 | 0.15448E-01 |
| 32 | 0.92844E+00 | -0.20015E+00 | 0.99998E+00 | 0.83126E-02 | - | - | 0.39689E-03 | 0.21263E-01 |
| 33 | 0.84244E+00 | -0.20015E+00 | 0.10126E+01 | 0.79440E-02 | - | - | 0.18916E-01 | 0.22097E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10359E+01 | 0.96652E-02 | - | - | 0.72028E-01 | 0.18085E-01 |
| 35 | 0.67128E+00 | -0.20015E+00 | 0.10517E+01 | 0.83177E-02 | - | - | 0.20092E-01 | 0.17676E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10679E+01 | 0.12499E-01 | - | - | 0.88125E-02 | 0.22703E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10732E+01 | 0.82388E-02 | - | - | 0.52218E-02 | 0.44487E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10819E+01 | 0.10919E-01 | - | - | -0.60164E-02 | 0.49368E-01 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.10823E+01 | 0.97646E-02 | - | - | -0.38894E-01 | 0.21466E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10711E+01 | 0.14308E-01 | - | - | -0.62054E-01 | 0.21173E-01 |
| 41 | 0.15672E+00 | -0.20015E+00 | 0.10500E+01 | 0.14553E-01 | - | - | -0.78855E-01 | 0.16252E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.10221E+01 | 0.16641E-01 | - | - | -0.81088E-01 | 0.21466E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.99201E+00 | 0.15786E-01 | - | - | -0.66638E-01 | 0.23559E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.97401E+00 | 0.12775E-01 | - | - | -0.31388E-01 | 0.28259E-01 |

I1 = 0.0334 I2 = 2.5946 I3 = 0.1114 I4 = -2.4914

Lift = 0.2481

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 2 at y/c = 0.503

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10019E+00 | -0.20003E+00 | 0.95224E+00 | 0.10156E-01 | - | - | -0.11296E-01 | 0.22849E-01 |
| 2 | -0.10019E+00 | -0.13322E+00 | 0.93166E+00 | 0.99893E-02 | - | - | -0.37549E-02 | 0.21446E-01 |
| 3 | -0.10019E+00 | -0.66531E-01 | 0.91353E+00 | 0.11747E-01 | - | - | 0.37259E-01 | 0.26216E-01 |
| 4 | -0.10019E+00 | 0.15778E-03 | 0.93235E+00 | 0.80637E-02 | - | - | 0.91508E-01 | 0.22989E-01 |
| 5 | -0.10019E+00 | 0.66846E-01 | 0.98776E+00 | 0.92026E-02 | - | - | 0.12254E+00 | 0.28424E-01 |
| 6 | -0.10019E+00 | 0.13341E+00 | 0.10300E+01 | 0.89270E-02 | - | - | 0.11313E+00 | 0.25925E-01 |
| 7 | -0.10019E+00 | 0.20010E+00 | 0.10515E+01 | 0.92713E-02 | - | - | 0.92244E-01 | 0.20364E-01 |
| 8 | -0.99587E-01 | 0.20010E+00 | 0.10495E+01 | 0.77289E-02 | - | - | 0.83963E-01 | 0.17773E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.10885E+01 | 0.11333E-01 | - | - | 0.10194E+00 | 0.22825E-01 |
| 10 | 0.71690E-01 | 0.20010E+00 | 0.11375E+01 | 0.10688E-01 | - | - | 0.85334E-01 | 0.17468E-01 |
| 11 | 0.15733E+00 | 0.20010E+00 | 0.11790E+01 | 0.10088E-01 | - | - | 0.42809E-01 | 0.16760E-01 |
| 12 | 0.24309E+00 | 0.20010E+00 | 0.11874E+01 | 0.92434E-02 | - | - | -0.40232E-02 | 0.24038E-01 |
| 13 | 0.32885E+00 | 0.20010E+00 | 0.11743E+01 | 0.11391E-01 | - | - | -0.45557E-01 | 0.24190E-01 |
| 14 | 0.41437E+00 | 0.20010E+00 | 0.11528E+01 | 0.11313E-01 | - | - | -0.80493E-01 | 0.17928E-01 |
| 15 | 0.50037E+00 | 0.20010E+00 | 0.11303E+01 | 0.12472E-01 | - | - | -0.98674E-01 | 0.15581E-01 |
| 16 | 0.58601E+00 | 0.20010E+00 | 0.11085E+01 | 0.95410E-02 | - | - | -0.11061E+00 | 0.12834E-01 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.10861E+01 | 0.94388E-02 | - | - | -0.11897E+00 | 0.15812E-01 |
| 18 | 0.75753E+00 | 0.20010E+00 | 0.10738E+01 | 0.12412E-01 | - | - | -0.11339E+00 | 0.13303E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10581E+01 | 0.11486E-01 | - | - | -0.11182E+00 | 0.22693E-01 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10444E+01 | 0.13344E-01 | - | - | -0.10904E+00 | 0.23951E-01 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10363E+01 | 0.11599E-01 | - | - | -0.10339E+00 | 0.20603E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10299E+01 | 0.99063E-02 | - | - | -0.94494E-01 | 0.19769E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10294E+01 | 0.10198E-01 | - | - | -0.91021E-01 | 0.16805E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10227E+01 | 0.90107E-02 | - | - | -0.10099E+00 | 0.20517E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10127E+01 | 0.10503E-01 | - | - | -0.10918E+00 | 0.12902E-01 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10055E+01 | 0.11415E-01 | - | - | -0.10999E+00 | 0.13314E-01 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99429E+00 | 0.10891E-01 | - | - | -0.10460E+00 | 0.19457E-01 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98484E+00 | 0.20930E-01 | - | - | -0.79854E-01 | 0.22051E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.99312E+00 | 0.10310E-01 | - | - | -0.66917E-01 | 0.15949E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.99327E+00 | 0.84071E-02 | - | - | -0.64792E-01 | 0.98967E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98724E+00 | 0.14609E-01 | - | - | -0.64061E-01 | 0.48153E-01 |
| 32 | 0.92820E+00 | -0.20015E+00 | 0.99203E+00 | 0.12092E-01 | - | - | -0.67737E-01 | 0.48421E-01 |
| 33 | 0.84256E+00 | -0.20015E+00 | 0.10097E+01 | 0.84500E-02 | - | - | -0.74201E-01 | 0.54625E-01 |
| 34 | 0.75704E+00 | -0.20015E+00 | 0.10278E+01 | 0.99092E-02 | - | - | -0.70645E-01 | 0.48918E-01 |
| 35 | 0.67104E+00 | -0.20015E+00 | 0.10398E+01 | 0.10042E-01 | - | - | -0.78744E-01 | 0.49177E-01 |
| 36 | 0.58552E+00 | -0.20015E+00 | 0.10491E+01 | 0.10261E-01 | - | - | -0.96615E-01 | 0.50219E-01 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10540E+01 | 0.11128E-01 | - | - | -0.10386E+00 | 0.51009E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10548E+01 | 0.12488E-01 | - | - | -0.11812E+00 | 0.49551E-01 |
| 39 | 0.32824E+00 | -0.20015E+00 | 0.10418E+01 | 0.13100E-01 | - | - | -0.11726E+00 | 0.48079E-01 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10205E+01 | 0.95122E-02 | - | - | -0.12198E+00 | 0.49010E-01 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.99314E+00 | 0.14480E-01 | - | - | -0.13313E+00 | 0.47257E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.96516E+00 | 0.14925E-01 | - | - | -0.13757E+00 | 0.49720E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.94962E+00 | 0.11600E-01 | - | - | -0.15008E+00 | 0.55849E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.95256E+00 | 0.11838E-01 | - | - | -0.15971E+00 | 0.53716E-01 |

I1 = 0.0535 I2 = 2.6571 I3 = 0.0777 I4 = -2.4266

Lift = 0.3617

Swept Tapered Tip

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Circulation box no. 1 at y/c = 1.002

| NPT | x/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.10032E+00 | -0.20003E+00 | 0.93946E+00 | 0.89927E-02 | - | - | 0.59968E-02 | 0.12941E-01 |
| 2 | -0.10032E+00 | -0.13322E+00 | 0.92248E+00 | 0.10927E-01 | - | - | 0.18197E-01 | 0.20035E-01 |
| 3 | -0.10032E+00 | -0.66531E-01 | 0.90772E+00 | 0.95689E-02 | - | - | 0.66633E-01 | 0.20099E-01 |
| 4 | -0.10032E+00 | 0.15778E-03 | 0.93648E+00 | 0.10793E-01 | - | - | 0.13179E+00 | 0.22183E-01 |
| 5 | -0.10032E+00 | 0.66846E-01 | 0.10017E+01 | 0.90947E-02 | - | - | 0.15027E+00 | 0.23982E-01 |
| 6 | -0.10032E+00 | 0.13341E+00 | 0.10455E+01 | 0.87954E-02 | - | - | 0.12266E+00 | 0.14446E-01 |
| 7 | -0.10032E+00 | 0.20010E+00 | 0.10690E+01 | 0.10034E-01 | - | - | 0.10497E+00 | 0.19130E-01 |
| 8 | -0.99708E-01 | 0.20010E+00 | 0.10697E+01 | 0.95152E-02 | - | - | 0.10404E+00 | 0.15567E-01 |
| 9 | -0.14070E-01 | 0.20010E+00 | 0.11103E+01 | 0.98086E-02 | - | - | 0.11205E+00 | 0.12236E-01 |
| 10 | 0.71569E-01 | 0.20010E+00 | 0.11638E+01 | 0.10792E-01 | - | - | 0.94167E-01 | 0.14253E-01 |
| 11 | 0.15721E+00 | 0.20010E+00 | 0.12044E+01 | 0.11551E-01 | - | - | 0.47211E-01 | 0.12049E-01 |
| 12 | 0.24297E+00 | 0.20010E+00 | 0.12113E+01 | 0.90811E-02 | - | - | -0.87858E-02 | 0.14922E-01 |
| 13 | 0.32897E+00 | 0.20010E+00 | 0.11952E+01 | 0.91522E-02 | - | - | -0.52609E-01 | 0.13060E-01 |
| 14 | 0.41449E+00 | 0.20010E+00 | 0.11706E+01 | 0.95690E-02 | - | - | -0.85954E-01 | 0.11730E-01 |
| 15 | 0.50025E+00 | 0.20010E+00 | 0.11425E+01 | 0.10861E-01 | - | - | -0.10329E+00 | 0.11463E-01 |
| 16 | 0.58588E+00 | 0.20010E+00 | 0.11225E+01 | 0.10382E-01 | - | - | -0.11559E+00 | 0.97484E-02 |
| 17 | 0.67165E+00 | 0.20010E+00 | 0.11015E+01 | 0.83854E-02 | - | - | -0.12381E+00 | 0.11677E-01 |
| 18 | 0.75728E+00 | 0.20010E+00 | 0.10799E+01 | 0.10708E-01 | - | - | -0.12405E+00 | 0.10968E-01 |
| 19 | 0.84304E+00 | 0.20010E+00 | 0.10605E+01 | 0.68440E-02 | - | - | -0.12186E+00 | 0.94103E-02 |
| 20 | 0.92868E+00 | 0.20010E+00 | 0.10481E+01 | 0.76393E-02 | - | - | -0.11186E+00 | 0.94823E-02 |
| 21 | 0.10146E+01 | 0.20010E+00 | 0.10380E+01 | 0.83463E-02 | - | - | -0.10221E+00 | 0.11333E-01 |
| 22 | 0.11001E+01 | 0.20010E+00 | 0.10317E+01 | 0.71288E-02 | - | - | -0.94032E-01 | 0.11058E-01 |
| 23 | 0.11001E+01 | 0.19998E+00 | 0.10332E+01 | 0.83470E-02 | - | - | -0.95268E-01 | 0.11647E-01 |
| 24 | 0.11001E+01 | 0.13317E+00 | 0.10250E+01 | 0.98462E-02 | - | - | -0.96577E-01 | 0.11589E-01 |
| 25 | 0.11001E+01 | 0.66603E-01 | 0.10172E+01 | 0.10017E-01 | - | - | -0.10279E+00 | 0.87206E-02 |
| 26 | 0.11001E+01 | -0.85220E-04 | 0.10043E+01 | 0.77049E-02 | - | - | -0.10282E+00 | 0.79970E-02 |
| 27 | 0.11001E+01 | -0.66774E-01 | 0.99229E+00 | 0.84663E-02 | - | - | -0.96366E-01 | 0.70906E-02 |
| 28 | 0.11001E+01 | -0.13346E+00 | 0.98257E+00 | 0.22983E-01 | - | - | -0.69020E-01 | 0.21159E-01 |
| 29 | 0.11001E+01 | -0.20015E+00 | 0.99268E+00 | 0.69904E-02 | - | - | -0.59789E-01 | 0.10166E-01 |
| 30 | 0.10996E+01 | -0.20015E+00 | 0.99240E+00 | 0.77533E-02 | - | - | -0.59843E-01 | 0.91568E-02 |
| 31 | 0.10141E+01 | -0.20015E+00 | 0.98477E+00 | 0.62175E-02 | - | - | -0.48993E-01 | 0.10238E-01 |
| 32 | 0.92832E+00 | -0.20015E+00 | 0.98877E+00 | 0.66634E-02 | - | - | -0.34259E-01 | 0.71885E-02 |
| 33 | 0.84268E+00 | -0.20015E+00 | 0.10019E+01 | 0.63119E-02 | - | - | -0.22739E-01 | 0.69039E-02 |
| 34 | 0.75692E+00 | -0.20015E+00 | 0.10186E+01 | 0.62300E-02 | - | - | -0.20552E-01 | 0.85614E-02 |
| 35 | 0.67116E+00 | -0.20015E+00 | 0.10284E+01 | 0.86064E-02 | - | - | -0.26413E-01 | 0.11451E-01 |
| 36 | 0.58540E+00 | -0.20015E+00 | 0.10378E+01 | 0.84726E-02 | - | - | -0.38536E-01 | 0.73110E-02 |
| 37 | 0.49976E+00 | -0.20015E+00 | 0.10423E+01 | 0.90048E-02 | - | - | -0.52760E-01 | 0.83884E-02 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | 0.41412E+00 | -0.20015E+00 | 0.10339E+01 | 0.83056E-02 | - | - | -0.63827E-01 | 0.93821E-02 |
| 39 | 0.32848E+00 | -0.20015E+00 | 0.10221E+01 | 0.90779E-02 | - | - | -0.79258E-01 | 0.75949E-02 |
| 40 | 0.24248E+00 | -0.20015E+00 | 0.10048E+01 | 0.12508E-01 | - | - | -0.88428E-01 | 0.94870E-02 |
| 41 | 0.15684E+00 | -0.20015E+00 | 0.97635E+00 | 0.13918E-01 | - | - | -0.89133E-01 | 0.10274E-01 |
| 42 | 0.71204E-01 | -0.20015E+00 | 0.94535E+00 | 0.13465E-01 | - | - | -0.65933E-01 | 0.13993E-01 |
| 43 | -0.14556E-01 | -0.20015E+00 | 0.93339E+00 | 0.12322E-01 | - | - | -0.36981E-01 | 0.15602E-01 |
| 44 | -0.10019E+00 | -0.20015E+00 | 0.94426E+00 | 0.95588E-02 | - | - | 0.14355E-02 | 0.13410E-01 |

I1 = 0.0727 I2 = 2.6916 I3 = 0.0723 I4 = -2.3972

Lift = 0.4394

# Appendix C

## Wake Velocity Survey

PRECEDING PAGE BLANK NOT FILMED



198 INTENTIONALLY BLANK

Inboard angle = 6.6 Tip angle = 7.3 Delta theta = 0.7

Scan plane no. 1 at x/c = 1.050

| NPT | y/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.20029E+01 | -0.49995E+00 | 0.10215E+01 | 0.10024E-01 | -0.54715E-01 | 0.98494E-01 | 0.35505E-01 | 0.13944E-01 |
| 2 | -0.20029E+01 | -0.24983E+00 | 0.10228E+01 | 0.88769E-02 | -0.39073E-01 | 0.93553E-01 | 0.41852E-01 | 0.12630E-01 |
| 3 | -0.20029E+01 | 0.15778E-03 | 0.10275E+01 | 0.75883E-02 | -0.52923E-02 | 0.94365E-01 | 0.38996E-01 | 0.14398E-01 |
| 4 | -0.20029E+01 | 0.25015E+00 | 0.10297E+01 | 0.79048E-02 | 0.15130E-01 | 0.89670E-01 | 0.34050E-01 | 0.12931E-01 |
| 5 | -0.20029E+01 | 0.50014E+00 | 0.10327E+01 | 0.86705E-02 | -0.51038E-02 | 0.97186E-01 | 0.23477E-01 | 0.13026E-01 |
| 6 | -0.17529E+01 | 0.50002E+00 | 0.10361E+01 | 0.89293E-02 | 0.31897E-01 | 0.85882E-01 | 0.12246E-01 | 0.11591E-01 |
| 7 | -0.17529E+01 | 0.24991E+00 | 0.10335E+01 | 0.85273E-02 | 0.28540E-01 | 0.11581E+00 | 0.36145E-01 | 0.17448E-01 |
| 8 | -0.17529E+01 | -0.85220E-04 | 0.10288E+01 | 0.90367E-02 | -0.26133E-02 | 0.10435E+00 | 0.78705E-01 | 0.15326E-01 |
| 9 | -0.17529E+01 | -0.25008E+00 | 0.10206E+01 | 0.83760E-02 | -0.48293E-01 | 0.10100E+00 | 0.59061E-01 | 0.14247E-01 |
| 10 | -0.17529E+01 | -0.50007E+00 | 0.10185E+01 | 0.81383E-02 | -0.73401E-01 | 0.97651E-01 | 0.44931E-01 | 0.13288E-01 |
| 11 | -0.15031E+01 | -0.49995E+00 | 0.10167E+01 | 0.92250E-02 | -0.69547E-01 | 0.10277E+00 | 0.23083E-01 | 0.13852E-01 |
| 12 | -0.15031E+01 | -0.24983E+00 | 0.10166E+01 | 0.91983E-02 | -0.12776E+00 | 0.10520E+00 | 0.59544E-01 | 0.13781E-01 |
| 13 | -0.15031E+01 | 0.15778E-03 | 0.10151E+01 | 0.10242E-01 | 0.14884E+00 | 0.18798E+00 | 0.85716E-01 | 0.23527E-01 |
| 14 | -0.15031E+01 | 0.25015E+00 | 0.10379E+01 | 0.10141E-01 | 0.76389E-01 | 0.11187E+00 | 0.13472E-01 | 0.15529E-01 |
| 15 | -0.15031E+01 | 0.50014E+00 | 0.10407E+01 | 0.10417E-01 | 0.14921E-01 | 0.12252E+00 | 0.12981E-01 | 0.19435E-01 |
| 16 | -0.12541E+01 | 0.50002E+00 | 0.10444E+01 | 0.11416E-01 | 0.44676E-01 | 0.10113E+00 | -0.16951E-01 | 0.13831E-01 |
| 17 | -0.12541E+01 | 0.24991E+00 | 0.10427E+01 | 0.99249E-02 | 0.80821E-01 | 0.12012E+00 | -0.35861E-01 | 0.15410E-01 |
| 18 | -0.12541E+01 | -0.85220E-04 | 0.10126E+01 | 0.93502E-02 | 0.10624E+00 | 0.99902E-01 | -0.94593E-01 | 0.15119E-01 |
| 19 | -0.12541E+01 | -0.25008E+00 | 0.10018E+01 | 0.10865E-01 | -0.10187E+00 | 0.90439E-01 | -0.22258E-01 | 0.11882E-01 |
| 20 | -0.12541E+01 | -0.50007E+00 | 0.10105E+01 | 0.11510E-01 | -0.85486E-01 | 0.10913E+00 | -0.76276E-03 | 0.12487E-01 |
| 21 | -0.10008E+01 | -0.49995E+00 | 0.10043E+01 | 0.11739E-01 | -0.70213E-01 | 0.10951E+00 | -0.18132E-01 | 0.14660E-01 |
| 22 | -0.10008E+01 | -0.24983E+00 | 0.99165E+00 | 0.12292E-01 | -0.71898E-01 | 0.98334E-01 | -0.41913E-01 | 0.13890E-01 |
| 23 | -0.10008E+01 | 0.15778E-03 | 0.10017E+01 | 0.10947E-01 | 0.69829E-01 | 0.99280E-01 | -0.11103E+00 | 0.13140E-01 |
| 24 | -0.10008E+01 | 0.25015E+00 | 0.10388E+01 | 0.11524E-01 | 0.79248E-01 | 0.11711E+00 | -0.66794E-01 | 0.15256E-01 |
| 25 | -0.10008E+01 | 0.50014E+00 | 0.10460E+01 | 0.11983E-01 | 0.42921E-01 | 0.12507E+00 | -0.33731E-01 | 0.17416E-01 |
| 26 | -0.75006E+00 | 0.50002E+00 | 0.10494E+01 | 0.13356E-01 | 0.43305E-01 | 0.98121E-01 | -0.47998E-01 | 0.11504E-01 |
| 27 | -0.75006E+00 | 0.24991E+00 | 0.10374E+01 | 0.13818E-01 | 0.65856E-01 | 0.12005E+00 | -0.81316E-01 | 0.15885E-01 |
| 28 | -0.75006E+00 | -0.85220E-04 | 0.10003E+01 | 0.14479E-01 | 0.68161E-01 | 0.76894E-01 | -0.12094E+00 | 0.99857E-02 |
| 29 | -0.75006E+00 | -0.25008E+00 | 0.98901E+00 | 0.12298E-01 | -0.31207E-01 | 0.88192E-01 | -0.52074E-01 | 0.10575E-01 |
| 30 | -0.75006E+00 | -0.50007E+00 | 0.10026E+01 | 0.14343E-01 | -0.65452E-01 | 0.10434E+00 | -0.28514E-01 | 0.13159E-01 |
| 31 | -0.49800E+00 | -0.49995E+00 | 0.10022E+01 | 0.13908E-01 | -0.54979E-01 | 0.11291E+00 | -0.32755E-01 | 0.15168E-01 |
| 32 | -0.49800E+00 | -0.24983E+00 | 0.99027E+00 | 0.14993E-01 | -0.30923E-01 | 0.89924E-01 | -0.46950E-01 | 0.13158E-01 |
| 33 | -0.49800E+00 | 0.15778E-03 | 0.99376E+00 | 0.14370E-01 | 0.27065E-01 | 0.10071E+00 | -0.11488E+00 | 0.14507E-01 |
| 34 | -0.49800E+00 | 0.25015E+00 | 0.10363E+01 | 0.13093E-01 | 0.58749E-01 | 0.10825E+00 | -0.89132E-01 | 0.12881E-01 |
| 35 | -0.49800E+00 | 0.50014E+00 | 0.10506E+01 | 0.13411E-01 | 0.12075E-01 | 0.12641E+00 | -0.53177E-01 | 0.18337E-01 |
| 36 | -0.24719E+00 | 0.50002E+00 | 0.10562E+01 | 0.17424E-01 | 0.15941E-01 | 0.11975E+00 | -0.60289E-01 | 0.16645E-01 |
| 37 | -0.24719E+00 | 0.24991E+00 | 0.10395E+01 | 0.14775E-01 | 0.37546E-01 | 0.12208E+00 | -0.89596E-01 | 0.16795E-01 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 38 | -0.24719E+00 | -0.85220E-04 | 0.10038E+01 | 0.21558E-01 | 0.28719E-01 | 0.94278E-01 | -0.11943E+00 | 0.13433E-01 |
| 39 | -0.24719E+00 | -0.25008E+00 | 0.99070E+00 | 0.14304E-01 | -0.12646E-01 | 0.97364E-01 | -0.48267E-01 | 0.14632E-01 |
| 40 | -0.24719E+00 | -0.50007E+00 | 0.10022E+01 | 0.15039E-01 | -0.39200E-01 | 0.11688E+00 | -0.36301E-01 | 0.15677E-01 |
| 41 | 0.32079E-02 | -0.49995E+00 | 0.10054E+01 | 0.18447E-01 | -0.31022E-01 | 0.10600E+00 | -0.38822E-01 | 0.14047E-01 |
| 42 | 0.32079E-02 | -0.24983E+00 | 0.99017E+00 | 0.17129E-01 | -0.29841E-01 | 0.96440E-01 | -0.44639E-01 | 0.13694E-01 |
| 43 | 0.32079E-02 | 0.15778E-03 | 0.91536E+00 | 0.64756E-01 | -0.17562E+00 | 0.78425E+00 | 0.23780E-01 | 0.83956E-01 |
| 44 | 0.32079E-02 | 0.25015E+00 | 0.10300E+01 | 0.23721E-01 | 0.26642E-01 | 0.15714E+00 | -0.82899E-01 | 0.21313E-01 |
| 45 | 0.32079E-02 | 0.50014E+00 | 0.10575E+01 | 0.19069E-01 | 0.83962E-02 | 0.15490E+00 | -0.63186E-01 | 0.19760E-01 |
| 46 | 0.25423E+00 | 0.50002E+00 | 0.10605E+01 | 0.18551E-01 | 0.16621E-01 | 0.16320E+00 | -0.67777E-01 | 0.22089E-01 |
| 47 | 0.25423E+00 | 0.24991E+00 | 0.10486E+01 | 0.21019E-01 | 0.39788E-01 | 0.14030E+00 | -0.95179E-01 | 0.18674E-01 |
| 48 | 0.25423E+00 | -0.85220E-04 | 0.10104E+01 | 0.22160E-01 | 0.26363E-01 | 0.11230E+00 | -0.12417E+00 | 0.16037E-01 |
| 49 | 0.25423E+00 | -0.25008E+00 | 0.99266E+00 | 0.20218E-01 | -0.93995E-02 | 0.12638E+00 | -0.56776E-01 | 0.17997E-01 |
| 50 | 0.25423E+00 | -0.50007E+00 | 0.10016E+01 | 0.15848E-01 | -0.31694E-01 | 0.11951E+00 | -0.41075E-01 | 0.15765E-01 |
| 51 | 0.50314E+00 | -0.49995E+00 | 0.10058E+01 | 0.19080E-01 | -0.24539E-01 | 0.15691E+00 | -0.41146E-01 | 0.25051E-01 |
| 52 | 0.50314E+00 | -0.25020E+00 | 0.98977E+00 | 0.14676E-01 | -0.26724E-01 | 0.14240E+00 | -0.53651E-01 | 0.17092E-01 |
| 53 | 0.50314E+00 | -0.85220E-04 | 0.10030E+01 | 0.14509E-01 | 0.17816E-01 | 0.10259E+00 | -0.11556E+00 | 0.11020E-01 |
| 54 | 0.50314E+00 | 0.24991E+00 | 0.10452E+01 | 0.13238E-01 | 0.20803E-01 | 0.17868E+00 | -0.95254E-01 | 0.23696E-01 |
| 55 | 0.50314E+00 | 0.50002E+00 | 0.10586E+01 | 0.12425E-01 | -0.28958E-01 | 0.25137E+00 | -0.67266E-01 | 0.34652E-01 |
| 56 | 0.75313E+00 | 0.50014E+00 | 0.10628E+01 | 0.15822E-01 | -0.14824E+00 | 0.31714E+00 | -0.66583E-01 | 0.22964E-01 |
| 57 | 0.75313E+00 | 0.25015E+00 | 0.10491E+01 | 0.17181E-01 | 0.11423E-01 | 0.21994E+00 | -0.98427E-01 | 0.27768E-01 |
| 58 | 0.75313E+00 | 0.15778E-03 | 0.10028E+01 | 0.14822E-01 | -0.19312E-02 | 0.15663E+00 | -0.11252E+00 | 0.18880E-01 |
| 59 | 0.75313E+00 | -0.24983E+00 | 0.99209E+00 | 0.15953E-01 | -0.26505E-01 | 0.17116E+00 | -0.50151E-01 | 0.21474E-01 |
| 60 | 0.75313E+00 | -0.49995E+00 | 0.10039E+01 | 0.16119E-01 | -0.53818E-01 | 0.15201E+00 | -0.39382E-01 | 0.16378E-01 |
| 61 | 0.10015E+01 | -0.50007E+00 | 0.10025E+01 | 0.13471E-01 | -0.64942E-01 | 0.14790E+00 | -0.38126E-01 | 0.13506E-01 |
| 62 | 0.10015E+01 | -0.25020E+00 | 0.99107E+00 | 0.14057E-01 | -0.36333E-01 | 0.15966E+00 | -0.50405E-01 | 0.16204E-01 |
| 63 | 0.10015E+01 | -0.85220E-04 | 0.10055E+01 | 0.15590E-01 | -0.86554E-02 | 0.14383E+00 | -0.11214E+00 | 0.14726E-01 |
| 64 | 0.10015E+01 | 0.24991E+00 | 0.10510E+01 | 0.14806E-01 | -0.62490E-02 | 0.20238E+00 | -0.93370E-01 | 0.25476E-01 |
| 65 | 0.10015E+01 | 0.50002E+00 | 0.10661E+01 | 0.14768E-01 | -0.32925E-01 | 0.19736E+00 | -0.67973E-01 | 0.24041E-01 |

Inboard angle = 6.6 Tip angle = -5.8 Delta theta = -12.4

Scan plane no. 1 at x/c = 1.050

| NPT | y/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.20029E+01 | -0.49995E+00 | 0.10261E+01 | 0.68032E-02 | -0.23851E-01 | 0.93443E-01 | 0.10322E-01 | 0.12979E-01 |
| 2 | -0.20029E+01 | -0.24983E+00 | 0.10265E+01 | 0.61632E-02 | -0.28453E-01 | 0.97786E-01 | 0.93824E-02 | 0.13314E-01 |
| 3 | -0.20029E+01 | 0.15778E-03 | 0.10274E+01 | 0.56517E-02 | -0.36861E-01 | 0.83299E-01 | -0.68906E-03 | 0.11656E-01 |
| 4 | -0.20029E+01 | 0.25027E+00 | 0.10256E+01 | 0.69974E-02 | -0.41413E-01 | 0.85200E-01 | -0.36566E-02 | 0.13468E-01 |
| 5 | -0.20029E+01 | 0.50014E+00 | 0.10250E+01 | 0.72486E-02 | -0.23656E-01 | 0.87984E-01 | 0.14762E-02 | 0.12743E-01 |
| 6 | -0.17529E+01 | 0.50002E+00 | 0.10254E+01 | 0.70489E-02 | -0.31846E-01 | 0.83319E-01 | 0.13831E-01 | 0.11754E-01 |
| 7 | -0.17529E+01 | 0.24991E+00 | 0.10255E+01 | 0.68777E-02 | -0.40288E-01 | 0.93980E-01 | -0.43081E-02 | 0.13573E-01 |
| 8 | -0.17529E+01 | -0.20709E-03 | 0.10279E+01 | 0.66933E-02 | -0.27187E-01 | 0.10216E+00 | -0.20077E-01 | 0.13747E-01 |
| 9 | -0.17529E+01 | -0.25008E+00 | 0.10298E+01 | 0.63914E-02 | -0.42061E-02 | 0.91918E-01 | -0.45684E-02 | 0.12839E-01 |
| 10 | -0.17529E+01 | -0.50007E+00 | 0.10301E+01 | 0.61183E-02 | -0.34456E-01 | 0.10104E+00 | 0.15643E-01 | 0.13956E-01 |
| 11 | -0.15031E+01 | -0.49995E+00 | 0.10300E+01 | 0.72818E-02 | -0.12044E-01 | 0.92491E-01 | 0.28064E-01 | 0.12271E-01 |
| 12 | -0.15031E+01 | -0.24983E+00 | 0.10307E+01 | 0.71684E-02 | 0.22203E-01 | 0.97319E-01 | 0.29286E-01 | 0.12424E-01 |
| 13 | -0.15031E+01 | 0.15778E-03 | 0.10065E+01 | 0.23610E-01 | 0.19870E+00 | 0.42050E+00 | -0.17963E+00 | 0.50793E-01 |
| 14 | -0.15031E+01 | 0.25027E+00 | 0.10235E+01 | 0.68829E-02 | -0.35727E-01 | 0.10656E+00 | 0.56797E-02 | 0.15431E-01 |
| 15 | -0.15031E+01 | 0.50014E+00 | 0.10253E+01 | 0.63217E-02 | -0.37111E-01 | 0.85198E-01 | 0.25103E-01 | 0.11013E-01 |
| 16 | -0.12526E+01 | 0.50002E+00 | 0.10226E+01 | 0.87437E-02 | -0.28642E-01 | 0.9164 E-01 | 0.34122E-01 | 0.11259E-01 |
| 17 | -0.12526E+01 | 0.24991E+00 | 0.10157E+01 | 0.74025E-02 | -0.39063E-01 | 0.78322E-01 | 0.44482E-01 | 0.94779E-02 |
| 18 | -0.12526E+01 | -0.85220E-04 | 0.97668E+00 | 0.25097E-01 | -0.25958E-01 | 0.23444E+00 | 0.14646E+00 | 0.30297E-01 |
| 19 | -0.12526E+01 | -0.25008E+00 | 0.10231E+01 | 0.83837E-02 | 0.15086E-01 | 0.72909E-01 | 0.78211E-01 | 0.92285E-02 |
| 20 | -0.12526E+01 | -0.50007E+00 | 0.10300E+01 | 0.74461E-02 | -0.15101E-01 | 0.89678E-01 | 0.49334E-01 | 0.11647E-01 |
| 21 | -0.10008E+01 | -0.49995E+00 | 0.10318E+01 | 0.10272E-01 | -0.21457E-01 | 0.88951E-01 | 0.60585E-01 | 0.11589E-01 |
| 22 | -0.10008E+01 | -0.24983E+00 | 0.10195E+01 | 0.80164E-02 | -0.21360E-01 | 0.93528E-01 | 0.96046E-01 | 0.10238E-01 |
| 23 | -0.10008E+01 | 0.15778E-03 | 0.97704E+00 | 0.14487E-01 | -0.22553E-01 | 0.12893E+00 | 0.12694E+00 | 0.16065E-01 |
| 24 | -0.10008E+01 | 0.25015E+00 | 0.10092E+01 | 0.74743E-02 | -0.14659E-01 | 0.89506E-01 | 0.51217E-01 | 0.10588E-01 |
| 25 | -0.10008E+01 | 0.50014E+00 | 0.10210E+01 | 0.77515E-02 | -0.15624E-01 | 0.10151E+00 | 0.38961E-01 | 0.11759E-01 |
| 26 | -0.75006E+00 | 0.50002E+00 | 0.10226E+01 | 0.10264E-01 | 0.14488E-02 | 0.10726E+00 | 0.41032E-01 | 0.12193E-01 |
| 27 | -0.75006E+00 | 0.24991E+00 | 0.10084E+01 | 0.80428E-02 | 0.15617E-01 | 0.77702E-01 | 0.53965E-01 | 0.93312E-02 |
| 28 | -0.75006E+00 | -0.85220E-04 | 0.97888E+00 | 0.88425E-02 | -0.24759E-01 | 0.73466E-01 | 0.12897E+00 | 0.61140E-02 |
| 29 | -0.75006E+00 | -0.25008E+00 | 0.10165E+01 | 0.71097E-02 | -0.45059E-01 | 0.86257E-01 | 0.10248E+00 | 0.10697E-01 |
| 30 | -0.75006E+00 | -0.50007E+00 | 0.10274E+01 | 0.79721E-02 | -0.42304E-01 | 0.97078E-01 | 0.67727E-01 | 0.12183E-01 |
| 31 | -0.49800E+00 | -0.49995E+00 | 0.10269E+01 | 0.87579E-02 | -0.75641E-01 | 0.10851E+00 | 0.71759E-01 | 0.12542E-01 |
| 32 | -0.49800E+00 | -0.24983E+00 | 0.10165E+01 | 0.83406E-02 | -0.78820E-01 | 0.11343E+00 | 0.10793E+00 | 0.11580E-01 |
| 33 | -0.49800E+00 | 0.15778E-03 | 0.97953E+00 | 0.95683E-02 | -0.65542E-01 | 0.94206E-01 | 0.13760E+00 | 0.73525E-02 |
| 34 | -0.49800E+00 | 0.25015E+00 | 0.10077E+01 | 0.79843E-02 | 0.30792E-01 | 0.10071E+00 | 0.54351E-01 | 0.10982E-01 |
| 35 | -0.49800E+00 | 0.50014E+00 | 0.10242E+01 | 0.83868E-02 | 0.11406E-01 | 0.11301E+00 | 0.33657E-01 | 0.11607E-01 |
| 36 | -0.24719E+00 | 0.50002E+00 | 0.10304E+01 | 0.88210E-02 | 0.17630E-01 | 0.10327E+00 | 0.19170E-01 | 0.10981E-01 |
| 37 | -0.24719E+00 | 0.24991E+00 | 0.10128E+01 | 0.87281E-02 | 0.72494E-01 | 0.87245E-01 | 0.39306E-01 | 0.96141E-02 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | -0.24719E+00 | -0.85220E-04 | 0.98515E+00 | 0.10768E-01 | -0.44668E-01 | 0.84550E-01 | 0.15447E+00 | 0.73746E-02 |
| 39 | -0.24719E+00 | -0.25008E+00 | 0.10165E+01 | 0.90010E-02 | -0.11995E+00 | 0.85967E-01 | 0.11147E+00 | 0.96011E-02 |
| 40 | -0.24719E+00 | -0.50007E+00 | 0.10242E+01 | 0.81092E-02 | -0.10898E+00 | 0.11476E+00 | 0.59095E-01 | 0.13737E-01 |
| 41 | 0.32079E-02 | -0.49995E+00 | 0.10236E+01 | 0.11516E-01 | -0.12594E+00 | 0.10592E+00 | 0.30288E-01 | 0.12434E-01 |
| 42 | 0.32079E-02 | -0.24983E+00 | 0.10112E+01 | 0.94911E-02 | -0.23593E+00 | 0.99656E-01 | 0.52942E-01 | 0.10537E-01 |
| 43 | 0.32079E-02 | 0.15778E-03 | 0.98527E+00 | 0.44836E-01 | -0.34808E+00 | 0.50818E+00 | 0.64820E-01 | 0.74735E-01 |
| 44 | 0.32079E-02 | 0.25015E+00 | 0.10222E+01 | 0.99114E-02 | 0.71327E-01 | 0.11777E+00 | -0.21514E-01 | 0.11785E-01 |
| 45 | 0.32079E-02 | 0.50014E+00 | 0.10361E+01 | 0.89813E-02 | 0.17791E-01 | 0.13538E+00 | -0.11305E-01 | 0.12604E-01 |
| 46 | 0.25423E+00 | 0.50002E+00 | 0.10432E+01 | 0.11715E-01 | 0.16369E-01 | 0.13364E+00 | -0.29749E-01 | 0.13027E-01 |
| 47 | 0.25423E+00 | 0.24991E+00 | 0.10323E+01 | 0.94474E-02 | 0.61857E-01 | 0.10499E+00 | -0.79713E-01 | 0.12360E-01 |
| 48 | 0.25423E+00 | -0.85220E-04 | 0.10068E+01 | 0.11122E-01 | 0.87989E-01 | 0.83454E-01 | -0.14772E+00 | 0.10005E-01 |
| 49 | 0.25423E+00 | -0.25008E+00 | 0.10024E+01 | 0.12549E-01 | -0.12197E+00 | 0.92689E-01 | -0.36121E-01 | 0.11245E-01 |
| 50 | 0.25423E+00 | -0.50007E+00 | 0.10197E+01 | 0.10341E-01 | -0.10395E+00 | 0.10109E+00 | -0.79231E-02 | 0.11894E-01 |
| 51 | 0.50314E+00 | -0.49995E+00 | 0.10155E+01 | 0.12146E-01 | -0.82604E-01 | 0.11915E+00 | -0.27857E-01 | 0.14391E-01 |
| 52 | 0.50314E+00 | -0.24983E+00 | 0.99914E+00 | 0.12652E-01 | -0.83358E-01 | 0.10652E+00 | -0.51678E-01 | 0.13361E-01 |
| 53 | 0.50314E+00 | 0.15778E-03 | 0.10024E+01 | 0.10377E-01 | 0.34352E-01 | 0.12115E+00 | -0.12114E+00 | 0.15169E-01 |
| 54 | 0.50314E+00 | 0.25015E+00 | 0.10361E+01 | 0.90293E-02 | 0.53703E-01 | 0.12273E+00 | -0.92484E-01 | 0.13621E-01 |
| 55 | 0.50314E+00 | 0.50014E+00 | 0.10474E+01 | 0.85280E-02 | 0.43681E-02 | 0.16410E+00 | -0.85923E-01 | 0.13831E-01 |
| 56 | 0.75313E+00 | 0.50002E+00 | 0.10540E+01 | 0.15119E-01 | -0.21575E-01 | 0.21609E+00 | -0.66082E-01 | 0.14591E-01 |
| 57 | 0.75313E+00 | 0.24991E+00 | 0.10423E+01 | 0.14739E-01 | 0.28979E-01 | 0.12428E+00 | -0.94336E-01 | 0.15127E-01 |
| 58 | 0.75313E+00 | -0.20709E-03 | 0.10083E+01 | 0.16608E-01 | 0.30644E-01 | 0.10192E+00 | -0.11615E+00 | 0.13186E-01 |
| 59 | 0.75313E+00 | -0.25008E+00 | 0.99876E+00 | 0.14905E-01 | -0.61405E-01 | 0.11862E+00 | -0.54277E-01 | 0.15278E-01 |
| 60 | 0.75313E+00 | -0.50007E+00 | 0.10140E+01 | 0.12214E-01 | -0.66768E-01 | 0.11304E+00 | -0.36856E-01 | 0.13793E-01 |
| 61 | 0.10015E+01 | -0.49995E+00 | 0.10119E+01 | 0.11092E-01 | -0.60846E-01 | 0.11952E+00 | -0.39768E-01 | 0.15275E-01 |
| 62 | 0.10015E+01 | -0.24983E+00 | 0.99766E+00 | 0.12814E-01 | -0.65386E-01 | 0.13261E+00 | -0.51120E-01 | 0.17340E-01 |
| 63 | 0.10015E+01 | 0.15778E-03 | 0.10051E+01 | 0.12467E-01 | 0.14494E-01 | 0.12514E+00 | -0.11569E+00 | 0.16940E-01 |
| 64 | 0.10015E+01 | 0.25015E+00 | 0.10428E+01 | 0.99867E-02 | 0.16616E-01 | 0.13214E+00 | -0.96059E-01 | 0.14322E-01 |
| 65 | 0.10015E+01 | 0.50014E+00 | 0.10551E+01 | 0.10464E-01 | -0.36686E-01 | 0.18937E+00 | -0.68953E-01 | 0.15509E-01 |

Inboard angle = 6.6 Tip angle = 2.3 Delta theta = -4.3

Scan plane no. 1 at x/c = 1.050

| NPT | y/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.20029E+01 | -0.49982E+00 | 0.10229E+01 | 0.85276E-02 | -0.60267E-01 | 0.12308E+00 | 0.27098E-01 | 0.16041E-01 |
| 2 | -0.20029E+01 | -0.24983E+00 | 0.10226E+01 | 0.72665E-02 | -0.62981E-01 | 0.14204E+00 | 0.28165E-01 | 0.19929E-01 |
| 3 | -0.20029E+01 | 0.15778E-03 | 0.10259E+01 | 0.71529E-02 | -0.40780E-01 | 0.13662E+00 | 0.26178E-01 | 0.18948E-01 |
| 4 | -0.20029E+01 | 0.25015E+00 | 0.10278E+01 | 0.74570E-02 | -0.12295E-01 | 0.11968E+00 | 0.18736E-01 | 0.16624E-01 |
| 5 | -0.20029E+01 | 0.50014E+00 | 0.10283E+01 | 0.66777E-02 | -0.18038E-01 | 0.13628E+00 | 0.18498E-01 | 0.19160E-01 |
| 6 | -0.17529E+01 | 0.50002E+00 | 0.10311E+01 | 0.71019E-02 | 0.12391E-01 | 0.10120E+00 | 0.14016E-01 | 0.15720E-01 |
| 7 | -0.17529E+01 | 0.24991E+00 | 0.10284E+01 | 0.76447E-02 | 0.91294E-02 | 0.96443E-01 | 0.27056E-01 | 0.14487E-01 |
| 8 | -0.17529E+01 | -0.85220E-04 | 0.10256E+01 | 0.78213E-02 | -0.25620E-01 | 0.11213E+00 | 0.43269E-01 | 0.16841E-01 |
| 9 | -0.17529E+01 | -0.25006E+00 | 0.10236E+01 | 0.79448E-02 | -0.45720E-01 | 0.11703E+00 | 0.37736E-01 | 0.16824E-01 |
| 10 | -0.17529E+01 | -0.50007E+00 | 0.10205E+01 | 0.64616E-02 | -0.36044E-01 | 0.10410E+00 | 0.18781E-01 | 0.16698E-01 |
| 11 | -0.15031E+01 | -0.49995E+00 | 0.10200E+01 | 0.87036E-02 | -0.60739E-01 | 0.10379E+00 | 0.28494E-01 | 0.15685E-01 |
| 12 | -0.15031E+01 | -0.24983E+00 | 0.10187E+01 | 0.79908E-02 | -0.62673E-01 | 0.10760E+00 | 0.41391E-01 | 0.17462E-01 |
| 13 | -0.15031E+01 | 0.15778E-03 | 0.10056E+01 | 0.90176E-02 | 0.29119E-01 | 0.22463E+00 | 0.11452E+00 | 0.31387E-01 |
| 14 | -0.15031E+01 | 0.25015E+00 | 0.10314E+01 | 0.60875E-02 | 0.27072E-01 | 0.13417E+00 | 0.17603E-01 | 0.22637E-01 |
| 15 | -0.15031E+01 | 0.50014E+00 | 0.10338E+01 | 0.63458E-02 | 0.10271E-01 | 0.11689E+00 | 0.14165E-01 | 0.17763E-01 |
| 16 | -0.12526E+01 | 0.50002E+00 | 0.10378E+01 | 0.10264E-01 | 0.20516E-01 | 0.12135E+00 | 0.21024E-03 | 0.17131E-01 |
| 17 | -0.12526E+01 | 0.24978E+00 | 0.10322E+01 | 0.78949E-02 | 0.41514E-01 | 0.10402E+00 | -0.10959E-01 | 0.13684E-01 |
| 18 | -0.12526E+01 | -0.20709E-03 | 0.99342E+00 | 0.11279E-01 | 0.53490E-01 | 0.10428E+00 | -0.41629E-01 | 0.15619E-01 |
| 19 | -0.12526E+01 | -0.25008E+00 | 0.10127E+01 | 0.99076E-02 | -0.45072E-01 | 0.10308E+00 | 0.13043E-01 | 0.15835E-01 |
| 20 | -0.12526E+01 | -0.50007E+00 | 0.10179E+01 | 0.91978E-02 | -0.66860E-01 | 0.10756E+00 | 0.19535E-01 | 0.15241E-01 |
| 21 | -0.10008E+01 | -0.49995E+00 | 0.10159E+01 | 0.11233E-01 | -0.30691E-01 | 0.12341E+00 | 0.35009E-02 | 0.18514E-01 |
| 22 | -0.10008E+01 | -0.24983E+00 | 0.10043E+01 | 0.99540E-02 | -0.45356E-01 | 0.13999E+00 | 0.56410E-02 | 0.24369E-01 |
| 23 | -0.10008E+01 | 0.15778E-03 | 0.98810E+00 | 0.11001E-01 | -0.20020E-02 | 0.15955E+00 | -0.43302E-01 | 0.29778E-01 |
| 24 | -0.10008E+01 | 0.25015E+00 | 0.10308E+01 | 0.10958E-01 | 0.38547E-01 | 0.13217E+00 | -0.29479E-01 | 0.18259E-01 |
| 25 | -0.10008E+01 | 0.50014E+00 | 0.10393E+01 | 0.10029E-01 | 0.33746E-01 | 0.12737E+00 | -0.16218E-01 | 0.19230E-01 |
| 26 | -0.75006E+00 | 0.50002E+00 | 0.10406E+01 | 0.99777E-02 | 0.28240E-01 | 0.10870E+00 | -0.23065E-01 | 0.14526E-01 |
| 27 | -0.75006E+00 | 0.24991E+00 | 0.10300E+01 | 0.10846E-01 | 0.54352E-01 | 0.10436E+00 | -0.41825E-01 | 0.13129E-01 |
| 28 | -0.75006E+00 | -0.85220E-04 | 0.98978E+00 | 0.15373E-01 | 0.34698E-01 | 0.78434E-01 | -0.57700E-01 | 0.87861E-02 |
| 29 | -0.75006E+00 | -0.25020E+00 | 0.10028E+01 | 0.12022E-01 | -0.54851E-01 | 0.97557E-01 | 0.56977E-02 | 0.12012E-01 |
| 30 | -0.75006E+00 | -0.50007E+00 | 0.10129E+01 | 0.99312E-02 | -0.49903E-01 | 0.11251E+00 | 0.27195E-02 | 0.14869E-01 |
| 31 | -0.49800E+00 | -0.49995E+00 | 0.10133E+01 | 0.14295E-01 | -0.53774E-01 | 0.11201E+00 | 0.20852E-02 | 0.15035E-01 |
| 32 | -0.49800E+00 | -0.24983E+00 | 0.10020E+01 | 0.12152E-01 | -0.38040E-01 | 0.93884E-01 | 0.54150E-02 | 0.12063E-01 |
| 33 | -0.49800E+00 | 0.15778E-03 | 0.98389E+00 | 0.14483E-01 | 0.29122E-01 | 0.77962E-01 | -0.47327E-01 | 0.10472E-01 |
| 34 | -0.49800E+00 | 0.25015E+00 | 0.10297E+01 | 0.11863E-01 | 0.41593E-01 | 0.10709E+00 | -0.44517E-01 | 0.13304E-01 |
| 35 | -0.49800E+00 | 0.50014E+00 | 0.10415E+01 | 0.14105E-01 | 0.33494E-01 | 0.10973E+00 | -0.35956E-01 | 0.13077E-01 |
| 36 | -0.24719E+00 | 0.50002E+00 | 0.10455E+01 | 0.12195E-01 | 0.22659E-01 | 0.13219E+00 | -0.39690E-01 | 0.10164E-01 |
| 37 | -0.24719E+00 | 0.24991E+00 | 0.10332E+01 | 0.16394E-01 | 0.39775E-01 | 0.11129E+00 | -0.49384E-01 | 0.15696E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | -0.24719E+00 | -0.85220E-04 | 0.98939E+00 | 0.19092E-01 | 0.33673E-01 | 0.88101E-01 | -0.46376E-01 | 0.11313E-01 |
| 39 | -0.24719E+00 | -0.25020E+00 | 0.10003E+01 | 0.14074E-01 | -0.56557E-01 | 0.89556E-01 | 0.77331E-02 | 0.11460E-01 |
| 40 | -0.24719E+00 | -0.50007E+00 | 0.10118E+01 | 0.12203E-01 | -0.63343E-01 | 0.12075E+00 | -0.23173E-02 | 0.14960E-01 |
| 41 | 0.32079E-02 | -0.49995E+00 | 0.10165E+01 | 0.19518E-01 | -0.69368E-01 | 0.11977E+00 | -0.15464E-01 | 0.14791E-01 |
| 42 | 0.32079E-02 | -0.24983E+00 | 0.10034E+01 | 0.16177E-01 | -0.90640E-01 | 0.11602E+00 | -0.87262E-02 | 0.14678E-01 |
| 43 | 0.32079E-02 | 0.15778E-03 | 0.10023E+01 | 0.22488E-01 | 0.17051E+00 | 0.33896E+00 | -0.74922E-01 | 0.21794E-01 |
| 44 | 0.32079E-02 | 0.25027E+00 | 0.10404E+01 | 0.20962E-01 | 0.40712E-01 | 0.14984E+00 | -0.66730E-01 | 0.17376E-01 |
| 45 | 0.32079E-02 | 0.50014E+00 | 0.10553E+01 | 0.21523E-01 | 0.10470E-01 | 0.17410E+00 | -0.49555E-01 | 0.23353E-01 |
| 46 | 0.25423E+00 | 0.50002E+00 | 0.10549E+01 | 0.16254E-01 | 0.27332E-01 | 0.17847E+00 | -0.61485E-01 | 0.27850E-01 |
| 47 | 0.25423E+00 | 0.24991E+00 | 0.10446E+01 | 0.18442E-01 | 0.47684E-01 | 0.13806E+00 | -0.86085E-01 | 0.19003E-01 |
| 48 | 0.25423E+00 | -0.85220E-04 | 0.10110E+01 | 0.24023E-01 | 0.48092E-01 | 0.86048E-01 | -0.11971E+00 | 0.10813E-01 |
| 49 | 0.25423E+00 | -0.25008E+00 | 0.99711E+00 | 0.17290E-01 | -0.51386E-01 | 0.11946E+00 | -0.51072E-01 | 0.18908E-01 |
| 50 | 0.25423E+00 | -0.50007E+00 | 0.10094E+01 | 0.14100E-01 | -0.44292E-01 | 0.11721E+00 | -0.31634E-01 | 0.13910E-01 |
| 51 | 0.50314E+00 | -0.49995E+00 | 0.10148E+01 | 0.21967E-01 | -0.55820E-01 | 0.12685E+00 | -0.37410E-01 | 0.16514E-01 |
| 52 | 0.50314E+00 | -0.24983E+00 | 0.99926E+00 | 0.21570E-01 | -0.34848E-01 | 0.13329E+00 | -0.52622E-01 | 0.20167E-01 |
| 53 | 0.50314E+00 | 0.15778E-03 | 0.10061E+01 | 0.17922E-01 | 0.17033E-01 | 0.13959E+00 | -0.11307E+00 | 0.22807E-01 |
| 54 | 0.50314E+00 | 0.25015E+00 | 0.10487E+01 | 0.25386E-01 | 0.52950E-01 | 0.20058E+00 | -0.96642E-01 | 0.33134E-01 |
| 55 | 0.50314E+00 | 0.50014E+00 | 0.10599E+01 | 0.16627E-01 | 0.68525E-01 | 0.23394E+00 | -0.79623E-01 | 0.40145E-01 |
| 56 | 0.75313E+00 | 0.50002E+00 | 0.10848E+01 | 0.38313E-01 | 0.63963E-02 | 0.23775E+00 | -0.76091E-01 | 0.31321E-01 |
| 57 | 0.75313E+00 | 0.24991E+00 | 0.11139E+01 | 0.49785E-01 | 0.97176E-02 | 0.14936E+00 | -0.93263E-01 | 0.16789E-01 |
| 58 | 0.75313E+00 | -0.85220E-04 | 0.10099E+01 | 0.20912E-01 | 0.22590E-01 | 0.12912E+00 | -0.11555E+00 | 0.14180E-01 |
| 59 | 0.75313E+00 | -0.25020E+00 | 0.10050E+01 | 0.25436E-01 | -0.37800E-01 | 0.18491E+00 | -0.52170E-01 | 0.27109E-01 |
| 60 | 0.75313E+00 | -0.50007E+00 | 0.10087E+01 | 0.15834E-01 | -0.46802E-01 | 0.12646E+00 | -0.41232E-01 | 0.13599E-01 |
| 61 | 0.10015E+01 | -0.49995E+00 | 0.10117E+01 | 0.17552E-01 | -0.41615E-01 | 0.13068E+00 | -0.43448E-01 | 0.15254E-01 |
| 62 | 0.10015E+01 | -0.24983E+00 | 0.10115E+01 | 0.31756E-01 | -0.41152E-01 | 0.13506E+00 | -0.50049E-01 | 0.15459E-01 |
| 63 | 0.10015E+01 | 0.15778E-03 | 0.10095E+01 | 0.17049E-01 | -0.33350E-02 | 0.11039E+00 | -0.11218E+00 | 0.12604E-01 |
| 64 | 0.10015E+01 | 0.25015E+00 | 0.10503E+01 | 0.19418E-01 | 0.85524E-02 | 0.17999E+00 | -0.94327E-01 | 0.21229E-01 |
| 65 | 0.10015E+01 | 0.50014E+00 | 0.10649E+01 | 0.19245E-01 | 0.93948E-01 | 0.26902E+00 | -0.94808E-01 | 0.43431E-01 |

Inboard angle = 6.6 Tip angle = -2.1 Delta theta = -8.7

Scan plane no. 1 at x/c = 1.050

| NPT | y/c | z/c | u/U | $\sigma_u$ | v/U | $\sigma_v$ | w/U | $\sigma_w$ |
|---|---|---|---|---|---|---|---|---|
| 1 | -0.20029E+01 | -0.49995E+00 | 0.10242E+01 | 0.72605E-02 | -0.40967E-01 | 0.10626E+00 | 0.11610E-01 | 0.14813E-01 |
| 2 | -0.20029E+01 | -0.24983E+00 | 0.10232E+01 | 0.65888E-02 | -0.29094E-01 | 0.93619E-01 | 0.83939E-02 | 0.13519E-01 |
| 3 | -0.20029E+01 | 0.15778E-03 | 0.10260E+01 | 0.58537E-02 | -0.37590E-01 | 0.10352E+00 | 0.19257E-01 | 0.14871E-01 |
| 4 | -0.20029E+01 | 0.25015E+00 | 0.10262E+01 | 0.73672E-02 | -0.92559E-02 | 0.10670E+00 | 0.22814E-02 | 0.14336E-01 |
| 5 | -0.20029E+01 | 0.50014E+00 | 0.10261E+01 | 0.71611E-02 | -0.23236E-01 | 0.11804E+00 | 0.74042E-02 | 0.16595E-01 |
| 6 | -0.17529E+01 | 0.50002E+00 | 0.10266E+01 | 0.72054E-02 | -0.72359E-02 | 0.98565E-01 | 0.90603E-02 | 0.14127E-01 |
| 7 | -0.17529E+01 | 0.24978E+00 | 0.10268E+01 | 0.73482E-02 | -0.13423E-01 | 0.10668E+00 | 0.10435E-01 | 0.16190E-01 |
| 8 | -0.17529E+01 | -0.85220E-04 | 0.10261E+01 | 0.75279E-02 | -0.16596E-01 | 0.11026E+00 | 0.57868E-02 | 0.15390E-01 |
| 9 | -0.17529E+01 | -0.25008E+00 | 0.10250E+01 | 0.73104E-02 | -0.64980E-02 | 0.93522E-01 | 0.11113E-01 | 0.14152E-01 |
| 10 | -0.17529E+01 | -0.50007E+00 | 0.10238E+01 | 0.72938E-02 | -0.23371E-01 | 0.97674E-01 | 0.16562E-01 | 0.12847E-01 |
| 11 | -0.15031E+01 | -0.49995E+00 | 0.10247E+01 | 0.72229E-02 | -0.31507E-01 | 0.78475E-01 | 0.21879E-01 | 0.10730E-01 |
| 12 | -0.15031E+01 | -0.24983E+00 | 0.10232E+01 | 0.77205E-02 | -0.16013E-01 | 0.76591E-01 | 0.28597E-01 | 0.10780E-01 |
| 13 | -0.15031E+01 | 0.15778E-03 | 0.10055E+01 | 0.14165E-01 | -0.70695E-01 | 0.35745E+00 | -0.30312E-01 | 0.43100E-01 |
| 14 | -0.15031E+01 | 0.25015E+00 | 0.10248E+01 | 0.66342E-02 | -0.39359E-02 | 0.10973E+00 | 0.11786E-01 | 0.15141E-01 |
| 15 | -0.15031E+01 | 0.50014E+00 | 0.10262E+01 | 0.72096E-02 | -0.70144E-02 | 0.96801E-01 | 0.17988E-01 | 0.14271E-01 |
| 16 | -0.12526E+01 | 0.50002E+00 | 0.10296E+01 | 0.87805E-02 | -0.52879E-02 | 0.10134E+00 | 0.16195E-01 | 0.13757E-01 |
| 17 | -0.12526E+01 | 0.24991E+00 | 0.10224E+01 | 0.10348E-01 | 0.27562E-02 | 0.85009E-01 | 0.81132E-02 | 0.11276E-01 |
| 18 | -0.12526E+01 | -0.85220E-04 | 0.82057E+00 | 0.64663E-01 | -0.17614E+00 | 0.43517E+00 | 0.37520E-01 | 0.57628E-01 |
| 19 | -0.12526E+01 | -0.25008E+00 | 0.92664E+00 | 0.69914E-01 | -0.23739E-01 | 0.72915E-01 | 0.43193E-01 | 0.93098E-02 |
| 20 | -0.12526E+01 | -0.50007E+00 | 0.10212E+01 | 0.10055E-01 | -0.26825E-01 | 0.93014E-01 | 0.30742E-01 | 0.12180E-01 |
| 21 | -0.10008E+01 | -0.49995E+00 | 0.10222E+01 | 0.82753E-02 | -0.32836E-01 | 0.81206E-01 | 0.36390E-01 | 0.10878E-01 |
| 22 | -0.10008E+01 | -0.24983E+00 | 0.10132E+01 | 0.96484E-02 | -0.27901E-01 | 0.81796E-01 | 0.51695E-01 | 0.98972E-02 |
| 23 | -0.10008E+01 | 0.15778E-03 | 0.61098E+00 | 0.65658E-01 | -0.17949E+00 | 0.42290E+00 | 0.34446E-01 | 0.52602E-01 |
| 24 | -0.10008E+01 | 0.25015E+00 | 0.10211E+01 | 0.82800E-02 | 0.16873E-01 | 0.81132E-01 | 0.10104E-01 | 0.11694E-01 |
| 25 | -0.10008E+01 | 0.50014E+00 | 0.10310E+01 | 0.10375E-01 | -0.56592E-02 | 0.11343E+00 | 0.14226E-01 | 0.15676E-01 |
| 26 | -0.75006E+00 | 0.50002E+00 | 0.10328E+01 | 0.10217E-01 | 0.41112E-02 | 0.12068E+00 | 0.12563E-01 | 0.16741E-01 |
| 27 | -0.75006E+00 | 0.24991E+00 | 0.10193E+01 | 0.10445E-01 | 0.29833E-01 | 0.88928E-01 | 0.86701E-02 | 0.11353E-01 |
| 28 | -0.75006E+00 | -0.85220E-04 | 0.66862E+00 | 0.49646E-01 | -0.71514E-01 | 0.46327E+00 | 0.40232E-01 | 0.56801E-01 |
| 29 | -0.75006E+00 | -0.25008E+00 | 0.10117E+01 | 0.11630E-01 | -0.36671E-01 | 0.84282E-01 | 0.58447E-01 | 0.10918E-01 |
| 30 | -0.75006E+00 | -0.50007E+00 | 0.10215E+01 | 0.10521E-01 | -0.38327E-01 | 0.99571E-01 | 0.39893E-01 | 0.13789E-01 |
| 31 | -0.49800E+00 | -0.49995E+00 | 0.10204E+01 | 0.10288E-01 | -0.53716E-01 | 0.82653E-01 | 0.36401E-01 | 0.10486E-01 |
| 32 | -0.49800E+00 | -0.24983E+00 | 0.10117E+01 | 0.11634E-01 | -0.57138E-01 | 0.91592E-01 | 0.61316E-01 | 0.10971E-01 |
| 33 | -0.49800E+00 | 0.27892E-03 | 0.62710E+00 | 0.48471E-01 | -0.14381E+00 | 0.44623E+00 | 0.51391E-01 | 0.54393E-01 |
| 34 | -0.49800E+00 | 0.25015E+00 | 0.10224E+01 | 0.10979E-01 | 0.27168E-01 | 0.92182E-01 | 0.64779E-02 | 0.12490E-01 |
| 35 | -0.49800E+00 | 0.50014E+00 | 0.10330E+01 | 0.95664E-02 | 0.18837E-01 | 0.10288E+00 | -0.14913E-02 | 0.13828E-01 |
| 36 | -0.24719E+00 | 0.50002E+00 | 0.10384E+01 | 0.12633E-01 | 0.30915E-01 | 0.10160E+00 | -0.96014E-02 | 0.13401E-01 |
| 37 | -0.24719E+00 | 0.24991E+00 | 0.10244E+01 | 0.11561E-01 | 0.57775E-01 | 0.81701E-01 | -0.96319E-02 | 0.11062E-01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 38 | -0.24719E+00 | -0.85220E-04 | 0.79262E+00 | 0.53590E-01 | -0.25292E-02 | 0.37749E+00 | 0.60069E-01 | 0.51173E-01 |
| 39 | -0.24719E+00 | -0.25020E+00 | 0.10136E+01 | 0.12370E-01 | -0.85261E-01 | 0.93919E-01 | 0.64281E-01 | 0.12232E-01 |
| 40 | -0.24719E+00 | -0.50007E+00 | 0.10206E+01 | 0.11609E-01 | -0.80188E-01 | 0.10560E+00 | 0.28155E-01 | 0.13219E-01 |
| 41 | 0.32079E-02 | 0.49004E+00 | 0.10434E+01 | 0.13693E-01 | 0.29462E-01 | 0.10830E+00 | -0.31098E-01 | 0.14973E-01 |
| 42 | 0.32079E-02 | 0.23982E+00 | 0.10327E+01 | 0.14870E-01 | 0.59179E-01 | 0.10779E+00 | -0.40776E-01 | 0.15239E-01 |
| 43 | 0.32079E-02 | -0.10289E-01 | 0.99623E+00 | 0.18157E-01 | -0.17134E+00 | 0.40996E+00 | 0.61204E-01 | 0.34303E-01 |
| 44 | 0.32079E-02 | -0.26016E+00 | 0.10116E+01 | 0.14359E-01 | -0.17096E+00 | 0.10408E+00 | 0.29621E-01 | 0.14233E-01 |
| 45 | 0.32079E-02 | -0.51015E+00 | 0.10195E+01 | 0.12785E-01 | -0.87483E-01 | 0.11717E+00 | 0.74132E-02 | 0.14596E-01 |
| 46 | 0.25423E+00 | -0.51003E+00 | 0.10164E+01 | 0.13815E-01 | -0.89195E-01 | 0.10301E+00 | -0.15950E-01 | 0.14674E-01 |
| 47 | 0.25423E+00 | -0.25992E+00 | 0.10017E+01 | 0.14306E-01 | -0.96428E-01 | 0.10818E+00 | -0.40599E-01 | 0.14648E-01 |
| 48 | 0.25423E+00 | -0.99243E-02 | 0.10014E+01 | 0.13766E-01 | 0.61904E-01 | 0.95101E-01 | -0.12883E+00 | 0.14984E-01 |
| 49 | 0.25423E+00 | 0.24007E+00 | 0.10367E+01 | 0.15520E-01 | 0.78218E-01 | 0.13472E+00 | -0.86569E-01 | 0.20650E-01 |
| 50 | 0.25423E+00 | 0.49030E+00 | 0.10522E+01 | 0.22624E-01 | 0.19451E-01 | 0.12431E+00 | -0.51890E-01 | 0.16187E-01 |
| 51 | 0.50316E+00 | 0.49006E+00 | 0.10548E+01 | 0.16335E-01 | 0.24953E-01 | 0.14771E+00 | -0.64694E-01 | 0.20343E-01 |
| 52 | 0.50316E+00 | 0.23982E+00 | 0.10411E+01 | 0.15430E-01 | 0.50209E-01 | 0.12763E+00 | -0.93068E-01 | 0.19125E-01 |
| 53 | 0.50316E+00 | -0.10289E-01 | 0.10024E+01 | 0.15541E-01 | 0.49330E-01 | 0.94256E-01 | -0.12044E+00 | 0.13935E-01 |
| 54 | 0.50316E+00 | -0.26026E+00 | 0.10003E+01 | 0.17942E-01 | 0.95226E-01 | 0.24027E+00 | -0.90324E-01 | 0.47635E-01 |
| 55 | 0.50316E+00 | -0.51027E+00 | 0.10141E+01 | 0.13654E-01 | -0.68720E-01 | 0.11615E+00 | -0.32230E-01 | 0.16383E-01 |
| 56 | 0.75313E+00 | -0.51003E+00 | 0.10192E+01 | 0.20909E-01 | -0.56802E-01 | 0.15656E+00 | -0.39297E-01 | 0.24700E-01 |
| 57 | 0.75313E+00 | -0.25992E+00 | 0.10282E+01 | 0.41030E-01 | -0.42076E-01 | 0.18706E+00 | -0.54853E-01 | 0.34346E-01 |
| 58 | 0.75313E+00 | -0.99243E-02 | 0.10067E+01 | 0.18816E-01 | 0.16751E-01 | 0.14099E+00 | -0.11401E+00 | 0.23452E-01 |
| 59 | 0.75313E+00 | 0.24019E+00 | 0.10466E+01 | 0.21813E-01 | 0.34609E-01 | 0.14531E+00 | -0.96353E-01 | 0.22091E-01 |
| 60 | 0.75313E+00 | 0.49018E+00 | 0.10642E+01 | 0.26876E-01 | 0.22741E-01 | 0.21194E+00 | -0.73592E-01 | 0.32144E-01 |
| 61 | 0.10015E+01 | 0.49006E+00 | 0.10714E+01 | 0.29122E-01 | 0.31657E-02 | 0.17276E+00 | -0.71648E-01 | 0.26810E-01 |
| 62 | 0.10015E+01 | 0.23982E+00 | 0.10679E+01 | 0.28118E-01 | 0.74124E-02 | 0.27116E+00 | -0.95394E-01 | 0.44356E-01 |
| 63 | 0.10015E+01 | -0.10167E-01 | 0.10059E+01 | 0.17848E-01 | -0.24427E-02 | 0.31578E+00 | -0.11802E+00 | 0.51717E-01 |
| 64 | 0.10015E+01 | -0.26016E+00 | 0.10044E+01 | 0.22544E-01 | -0.18858E-01 | 0.25160E+00 | -0.64468E-01 | 0.33925E-01 |
| 65 | 0.10015E+01 | -0.51027E+00 | 0.10127E+01 | 0.16516E-01 | -0.78718E-01 | 0.15948E+00 | -0.40169E-01 | 0.13135E-01 |

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**16. Abstract**

A wind tunnel test was conducted in the NASA Ames 7- by 10-Foot Wind Tunnel to investigate the lift distribution on a semi-span wing with a discontinuous change in spanwise twist. The semi-span wing had a tip with an adjustable pitch angle independent on the inboard section pitch angle simulating the free-tip rotor blade when its free-tip is at a deflected position. The spanwise lift distribution over the wing and the tip were measured and three-component velocity surveys behind the wing were obtained with a three-dimensional laser doppler velocimeter (LV) with the wing at one angle of attack and the tip deflected at different pitch angles. A six-component internal strain gage balance was also used to measure total forces and moments on the tip. The three-dimensional lift was computed from the two-dimensional lift distributions obtained from the LV and from the strain gage balance. The results from both experimental methods are shown to be in agreement with predictions made by a steady, three-dimensional panel code, VSAERO.

| 17. Key Words (Suggested by Author(s)) | 18. Distribution Statement |
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